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ECONOMY IN EDUCATION[1]

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The object of our meeting this evening is to confer together about some possible wastes, I understand, in our organization and methods. Of course in one sense there is no waste in keeping all our boys and girls with good teachers as long as we can. Yet after all we have to bear in mind the supposition that at the end we are trying to give these boys and girls a training for life, and the schooling should have therefore a definite sequence, a beginning, certainly, but also an end. What I wish to discuss briefly is not the many details that you have considered or will consider, bearing on different phases of the subject, but rather some general aspects of it, and if you will allow me, I want to take a look backward from the present and see where we are as a result of our greater elaboration and organization. I shall refer frequently to one phase of education because that illustrates what I have in mind, that is, education in medicine. Of course it is possible for young men, and young women too, if they wish, to go into medical schools without very much preliminary training, but it is very undesirable. The entire tendency is to give in the college the preliminary training, which should precede a thorough medical course, and to bring

[1] Read at the meeting of the Educational Conference with Secondary Schools, Chicago, April 18, 1913. In the September, 1912, number of the *School Review* appears an article by President Judson on "Waste in Educational Curricula."

into the medical profession, therefore, not simply half-educated boys, but well-trained young men, and then to supplement the course in the medical school by a year or two years of interne work in a hospital. Then, and not till then, is the young man ready for practice.

The highly specialized work of our present society requires specialized training, which consists not simply in the many things a man ought to know, but also in the preparation of the mind. And so we are eliminating gradually the ineffective medical schools. A medical friend informs me that there have been in the last year or two, something over forty medical schools that have disappeared, for the benefit of the entire country—not only for the medical profession, but for all of us on whom the medical profession practice—and I am told there are certain others that might disappear without injuring the profession. The profession is trying steadily to advance in the best possible way. But here we are confronted with this difficulty: as things are, if a young man enters on his medical studies without having had the preliminary training, he is lacking in what is considered an essential preparation for entering upon his professional work; if, on the other hand, he takes the full college course before he takes the medical training, two things result: (1), he takes his medical work when his mind and his hands are somewhat stiffened, because he is not so young as he might be to begin these studies; and (2) by the time he gets through the interneship in the hospital, he is twenty-seven or twenty-eight years old, so that he enters on his life-work older by far than ought to be the case.

I am going to ask to be permitted to call attention to some data under this head given a year or two ago at a meeting of the Council of Medical Education of the United States. The President of that Council called attention to certain facts: that medical candidates at the Western Reserve University for 1912 had an average age of 27.9 years; at Harvard, 27.2 years; at Rush Medical College, which is affiliated with the University of Chicago, 27 years; at the University of California, 27; at Johns Hopkins University, 26.4; and at Cornell University, 26.4. At Johns Hopkins and Harvard and Western Reserve the four years' medical course calls for a four-year college preparatory course; students must have been nineteen

or twenty when they entered college. At Rush Medical College, the total course, including the college course, is six years. A medical candidate must have been fully twenty, and a little more on the average where men have been financially unable to enter upon their medical course as soon as they have finished the high school. After the six or eight years of college work and medical study, the student begins to practice his profession, and perhaps you can guess how long it will take him to establish himself so that he can live and perhaps help someone else to live at the same time. In other words the young man is past thirty before he is established in his profession.

I have here a table printed in a publication recently issued by the United States Bureau of Education, entitled *Present Standards of Higher Education in the United States*, showing that the end of the medical course preceding the hospital work, in France, on the average finds a young man at the age of 23; in Germany, at the age of 23; in Great Britain, at the age of 23; in the Netherlands, at the age of 24; in Switzerland, at the age of 23, and in the United States in the best schools, the most advanced schools in the country, at the age of 26. That is the ideal, the theoretical, age, and means a practical age of upward of twenty-seven. That means, so far as medical education is concerned, that we have spent a great amount of time of course in preliminary work, a part in the elementary school, a part in the high school, and a part in college, before a young man enters upon his medical course. It seems to me that somewhere in that long course there are years of preparatory work that could be condensed or eliminated. I believe that we can say that at least a year of the elementary school can be eliminated. I feel sure that we do not need more than seven years—I am stretching a point to concede seven years—for elementary-school work. And when I turn to the college, I am confronted by the fact that our American colleges are unlike anything else in the civilized world. In this particular case I think the fact that we are different is not a thing of which to be proud. We are doing university work in the last two college years, and secondary-school work in the first two college years. I repeat, our colleges are doing secondary-school work. Historically the reasons for this are obvious. The origin

of our colleges goes back to imitation of the English colleges at Oxford and Cambridge. Partly, again, a century ago secondary schools were not developed very highly, therefore very little was required of a student who went to college and we have kept on as we started. When we once do a thing in educational lines, educational inertia causes us to keep on doing it. Hence today we are doing in colleges secondary-school work which is no longer necessary, because we have developed a great body of secondary schools which a century ago were unknown. I can remember distinctly my own admission to college—it was not so many years ago; we had to have a certain amount of Latin, a certain amount of Greek—no more Latin and no more Greek than is required of the Freshman class in most of our colleges today. We also had to have mathematics—we had to know something about arithmetic, and something about algebra through quadratics, and something about plane geometry. We were supposed to know something about the English language, and we mostly did not. That is all. All that of course could be acquired by a schoolboy who plodded along for two or three years. Now we have filled out a secondary-school course that takes four years. We mean something when we require a knowledge of the English language today. We have put in a great mass of scientific work—real science work. I remember I had to teach physics when I came out of college and went to teach in a high school. They were teaching it out of a book, with no experiments, no laboratory. They learned everything out of the book. I was told I was not teaching it the right way. When I asked why, I found the preceding teacher had taught the pupils to memorize the text and emphasize a little more the italicized parts, and still more the parts in small caps. You know what is being done now, the elaborate laboratories—the experiments that our boys and girls are making in physics laboratories, and in chemistry. Chemistry in those days was seldom known in high schools.

What do I mean by secondary-school work? It is hard to define, and yet I think it is fairly easy to define the difference between secondary-school work on the one hand, and college work on the other hand. Secondary-school work is work which is elementary. Take it in French—you begin French and you teach a couple

of years of French that belong to the secondary school. There is no earthly reason why this should be taught in the college. The same is true of German. I don't believe these subjects ought to be taught in the college. We are teaching history to Freshmen—a very useful thing, no doubt. But it is done in the high schools, and may be done quite as well as in college. The thing easily sums up to a quarter or a third of college work which is essentially secondary-school work. It seems to me that this is one point of weakness in our combined systems.

I have just touched on these things in a general way, because I believe we are keeping our boys and girls too long in school before going on to the real business of life, whether that is professional work, or whether it is business. It is our business as teachers, it seems to me, to put our heads together and find out whether this is true, and find out how we can better accomplish the purposes we have in mind, and that can only be done by teachers working together, because one of our troubles is that the course throughout is not consecutive. I have found so many times that the college teachers say, "Why certainly we must teach these things because they are not taught properly in the high school." And high-school teachers say, "We must teach this and that because they are not taught properly in the elementary school." Now I suspect that condition does not come from defective teaching, but that it is human nature in a teacher to feel that any teaching not his own is not thorough. To organize education aright, it should not be done in a fragmentary way, and therefore we all belong together in meeting the plans which I believe ought to be formed and carried out for the elimination of needless repetition in our secondary school and colleges. I would put less time on the beginnings of our education, and more time on the endings of our education.

QUALIFICATIONS, SALARY, AND TENURE OF THE TEACHERS IN THE COMMISSIONED HIGH SCHOOLS OF INDIANA

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Superintendents and boards of education are discussing the problem of securing better-prepared teachers for their high schools. High-school teachers, on the other hand, are discussing the problem of securing better salaries. It would be interesting to know just what are the qualifications of our high-school teachers, what are their salaries, and what is the relation between their salaries and the various factors in their preparation. To answer these questions for the state of Indiana has been the purpose of this study.

MATERIAL AND METHOD

For data, the writer first turned to the office of the state superintendent of public instruction. There he was met with every courtesy and the spirit of co-operation; however, there were no data in the office from which these questions could be answered.

A questionnaire was then planned and sent to every superintendent in the state who had supervision over a commissioned high school. This questionnaire was sent out during the third week of December, 1911.

All superintendents received a copy of the questionnaire and the returns came from all parts of the state and from towns of all sizes. This probably gives a random selection.

The following outline shows the headings under which the data were reported:

1. Sex
2. Annual salary
3. Subjects taught
4. Periods per day
5. Periods per week
6. Years of experience
   (1) In present position
   (2) As superintendent

(3) As principal of high school
(4) As supervisor
(5) As teacher in high school
(6) As principal of graded building
(7) As grade teacher in town or city
(8) As teacher in country district school

7. Age when began teaching
8. Scholastic preparation
   (1) Name of high school
      a) Months attended
   (2) Name of normal school
      a) Dates attended
      b) Degree
      c) When received
   (3) Name of college
      a) Dates attended
      b) Degree
      c) When received
   (4) Name of university
      a) Dates attended
      b) Degree
      c) When received
9. Number of months devoted to the study of:
   (1) History of education
   (2) School administration
   (3) Philosophy of education
   (4) School organization
   (5) Secondary education
   (6) Educational psychology
   (7) Elementary pedagogy
   (8) Special method
   (9) Practice teaching

Reports were received from one hundred and sixty schools. The towns from which the reports were received were classified on the basis of population as follows:[1]

Group	Population	Number of Towns
A	500 or less	35
B	501 to 1,000	47
C	1,001 to 2,500	47
D	2,501 to 5,000	11
E	5,001 to 10,000	9
F	10,001 to 25,000	8
G	Over 50,000	3

[1] It should be remembered that, all through this study, the groups of towns are designated by their letter names.

These data were supplemented by thirty reports to the inspector for the North Central Association of Colleges and Secondary Schools, containing data on salaries, scholastic preparation, number of years in present position, and total teaching experience. Of these thirty reports, seven were from towns in group "D," eleven from towns in group "E," nine from towns in group "F," and three from towns in group "G." It is likely that the central tendency of the conditions in the towns which reported is a little higher than in the towns which did not report. However, this can be only a matter of opinion and no allowance has been made for it.

RESULTS

Professional training of high-school teachers.—As explained in the introduction, the professional training was reported in months spent in the study of each of the following: history of education, school administration, philosophy of education, school organization, secondary education, educational psychology,[1] elementary pedagogy, special method, and practice teaching.

We shall consider (1) the professional training of all high-school teachers in each of the six groups of towns regardless of the subjects taught, and (2) the professional training of the teachers of the various subjects and combinations of subjects regardless of the size of the towns.[2]

Table I shows the amounts of professional training and the percentages with no professional training in the various groups of towns.

TABLE I

Groups of Cities on Basis of Population	Number of Cases	Professional Training in Months			Percentage with No Professional Training
		Median	25 Percentile	75 Percentile	
A.....	29	6	0	12	41
B.....	44	6	0	18	45
C.....	86	7	0	21	45
D.....	39	12	6	32	13
E.....	69	11	5	22	18
F.....	95	16	6	26	16

[1] The amount reported indicates that general psychology was also included under this heading.

[2] The data from the cities in group "G" were reported in such an irregular way that they could not be used.

Notice that towns with populations of 2,500 or less require only half as much professional training of their high-school teachers as the towns over 2,500.

It is interesting to note in Table II the percentages of the whole number of teachers, in each of the groups of towns, who teach one subject, two subjects, and three subjects respectively.

TABLE II

Groups of Towns on Basis of Population	Number of Cases	Percentage Teaching One Subject	Percentage Teaching Two Subjects	Percentage Teaching Three Subjects
A	26	12	77	11
B	39	13	62	25
C	78	30	60	10
D	35	83	14	3
E*	72	78	20	2
F	83	83	14	3

*One teacher in this group teaches four subjects: English, history, Latin, and mathematics.

Notice that in the towns of population of 1,000 or less, but 12 per cent of the teachers teach only one subject, while in towns with populations from 1,001 to 2,500, 30 per cent of the teachers teach only one subject, and in towns with populations over 2,500, 80 per cent of the teachers teach only one subject.

Table III shows the professional training of all high-school teachers irrespective of the size of the towns but classified on the basis of the subjects which they teach.

Notice that nine is the median for those that teach only English, those who teach only history, those who teach only Latin, and also those who teach only German. Eleven is the median for those who teach only science, and thirteen is the median for those who teach only mathematics. In other words, the science teachers have nearly 25 per cent and the mathematics teachers have nearly 50 per cent more professional training than the teachers of English, history, Latin, or German.

Generally for the combinations of subjects, the number of cases are so small that the results are not reliable.

General scholarship of high-school teachers.—For want of a better way, general scholarship has been measured in terms of degrees received from the various types of higher schools.

TABLE III

Subjects Taught	Professional Training of High-School Teachers				Percentage with No Professional Training
	Number of Cases	Median	25 Percentile	25 Percentile	
English	37	9	0	19	39
English, Latin	21	15	0	23	33
English, history	21	12	0	21	29
English, German	11	0	0	11	55
English, mathematics	3	0	0	11	67
English, science	2	27	27	27	0
English, Latin, history	3	9	0	11	33
English, Latin, German	1	9	9	9	0
English, history, mathematics	2	4	0	9	50
English, history, German	3	21	0	35	33
English, mathematics, science	1	0	0	0	100
English, German, drawing	1	12	12	12	0
English, manual training	1	27	27	27	0
English, history, science	2	3	0	6	50
English, music, drawing	2	3	0	6	50
English, domestic science	1	0	0	0	100
English, Latin, mathematics, history	1	0	0	0	100
History	21	9	3	21	24
History, Latin	4	3	0	19	50
History, German	1	0	0	0	100
History, science	6	6	0	27	50
History, mathematics	4	9	3	12	25
History, music	2	31	30	33	0
History, manual training	1	0	0	0	100
History, Latin, domestic science	1	27	27	27	0
History, science, mathematics	3	19	18	33	0
History, science, German	1	0	0	0	100
History, science, manual training	1	6	6	6	0
History, Eighth Grade	1	0	0	0	100
Mathematics	31	13	6	27	13
Mathematics, science	17	9	0	24	35
Mathematics, grades	1	3	3	3	0
Mathematics, Latin	3	0	0	20	66
Mathematics, domestic science	1	3	3	3	0
Mathematics, German	1	6	6	6	0
Science	27	11	0	18	37
Science, Latin	1	27	27	27	0
Science, Latin, music	1	18	18	18	0
Science, Latin, drawing	1	21	21	21	0
Latin	23	9	0	21	26
Latin, German	5	11	7	13	0
Latin, German, drawing	1	0	0	0	100
Latin, music, drawing	1	27	27	27	0
German	9	9	3	15	22
German, music	2	6	0	12	50
German, drawing	1	18	18	18	0
German, French	1	36	36	36	0

TABLE III—*Continued*

Subjects Taught	Professional Training of High-School Teachers				Percentage with No Professional Training
	Number of Cases	Median	25 Percentile	75 Percentile	
Drawing	1	12	12	12	0
Drawing, domestic science	1	36	36	36	0
Music	4	0	0	6	75
Commercial	8	4	0	12	37
Manual training	2	13	0	27	50
Domestic science	3	24	23	28	0

It was found impossible to make a satisfactory classification of these higher schools in which our secondary teachers were trained. Certain questions at once came up: What is a university in this country? What is a secondary school? What is a college? What is a normal school? These questions are likely to seem easy to the person who has never stopped to think about them. Anyone but a biologist knows the difference between plants and animals, while the latter would hesitate to commit himself on that point. For our purpose, these higher schools were divided into the following three classes: (1) normal schools; (2) private and sectarian schools and secondary colleges; (3) universities. The Indiana State Normal School is the only institution which falls in the first group.

Tables IV and V show the schools included in the second and third groups, and the number of teachers in each group of towns reporting degrees from each school.

Note that, in Table IV, the five leading schools come in the following order: (1) DePauw; (2) Earlham; (3) Valparaiso; (4) Butler; (5) Franklin.

Notice that among the universities, Indiana heads the list with more than half of the total number.

Many teachers who reported degrees from universities also reported degrees from the schools of the other two groups; however, the tables do not show this. The highest degree is taken as the measure of general scholarship.

Table VI shows the general scholarship of the high-school

teachers in each of the seven groups of towns, irrespective of the subjects taught.

TABLE IV

PRIVATE AND SECONDARY SCHOOLS AND SECONDARY COLLEGES

SCHOOLS AND COLLEGES	GROUPS OF TOWNS ON BASIS OF POPULATION							
	A	B	C	D	E	F	G	Totals
Depauw	3	2	8	5	8	8	12	46
Western College	1	1	.....	.....	.....	3	.....	5
Butler	2	.....	.....	.....	3	1	7	13
Oberlin	.....	.....	1	.....	2	3	3	9
Danville	1	2	1	.....	.....	.....	.....	4
Illinois Wesleyan	.....	1	.....	.....	.....	2	.....	3
Angola	.....	1	.....	.....	.....	.....	1	2
Valparaiso	.....	.....	4	4	2	2	4	16
Colorado College	.....	.....	1	.....	.....	.....	.....	1
Earlham	.....	.....	6	6	1	.....	4	17
Franklin	.....	.....	3	.....	3	1	5	12
Wooster	.....	.....	1	.....	.....	7	....	8
Carthage	.....	.....	1	.....	.....	.....	1	2
Beloit	.....	.....	1	.....	.....	.....	1	2
Radcliffe	.....	.....	1	.....	.....	1	3	5
Marion	.....	.....	1	.....	.....	.....	.....	1
Hanover	.....	.....	.....	.....	5	1	.....	6
Campbell	.....	.....	1	.....	.....	.....	.....	1
Wilmington	.....	.....	1	.....	.....	.....	.....	1
Wabash	.....	.....	.....	2	2	1	1	6
Gilford, N.C.	.....	.....	.....	1	.....	.....	.....	1
Lombard	.....	.....	.....	1	.....	.....	.....	1
Kalamazoo	.....	.....	.....	1	.....	.....	1	2
Ohio Wesleyan	.....	.....	.....	1	2	3	3	9
Holyoke, Mass	.....	.....	.....	1	.....	.....	.....	1
James Millikan	.....	.....	.....	.....	1	.....	.....	1
Syracuse	.....	.....	.....	.....	1	.....	.....	1
Vassar	.....	.....	.....	.....	2	1	.....	3
Olivet, Mich	.....	.....	.....	.....	1	2	3	6
Manchester	.....	.....	.....	.....	1	.....	.....	1
Galva, Ill	.....	.....	.....	.....	.....	1	.....	1
Royal	.....	.....	.....	.....	.....	1	....	1
Marietta	.....	.....	.....	.....	.....	1	.....	1
Adrian, Mich	.....	.....	.....	.....	.....	1	.....	1
Defiance, Ohio	.....	.....	.....	.....	.....	1	.....	1
Augustania	.....	.....	.....	.....	.....	1	.....	1
Western, Kentucky	.....	.....	.....	.....	.....	.....	1	1
Hope College	.....	.....	.....	.....	.....	.....	1	1
Emerson	.....	.....	.....	.....	.....	.....	1	1
Queens College	.....	.....	.....	.....	.....	.....	1	1
Wellesley	.....	.....	.....	.....	.....	.....	1	1
Denison	.....	.....	.....	.....	.....	.....	1	1
Drake College	.....	.....	.....	.....	.....	.....	1	1
Conn. Wesleyan	.....	.....	.....	.....	.....	.....	1	1
Lafayette College	.....	.....	.....	.....	.....	.....	1	1
Belmont	.....	.....	.....	.....	.....	.....	1	1

TABLE V

Universities	Groups of Towns on Basis of Population							
	A	B	C	D	E	F	G	Totals
Indiana	2	3	13	23	42	36	39	158
Michigan	.....	1	.....	3	3	8	16	31
Purdue	.....	.....	2	.....	.....	8	10	20
Northwestern	.....	.....	1	.....	1	3	1	6
Cornell	.....	.....	1	.....	.....	17	2	20
Chicago	.....	.....	1	4	9	1	26	41
Kansas	.....	.....	1	.....	.....	.....	.....	1
Columbia	.....	.....	.....	1	.....	2	1	4
Ohio State	.....	.....	.....	2	.....	.....	1	3
Illinois	.....	.....	.....	.....	3	3	4	10
Minnesota	.....	.....	.....	.....	.....	1	3	4
Wisconsin	.....	.....	.....	.....	.....	3	3	6
Missouri	.....	.....	.....	.....	.....	1	.....	1
Michigan Agricultural	.....	.....	.....	.....	.....	1	.....	1
Leland Stanford Junior	.....	.....	.....	.....	.....	.....	1	1
Harvard	.....	.....	.....	.....	.....	.....	2	2

TABLE VI

The General Scholarship of High-School Teachers in Terms of the Number Who Have Degrees

Groups of Cities on Basis of Population	Number of Cases	None	Normal	Private and Sectarian Schools and Secondary Colleges	Universities
A	29	20	.....	7	2
B	44	31	2	7	4
C	86	33	3	31	19
D	83	24	4	22	33
E	145	48	5	34	58
F	181	51	4	42	84
G	289	120	1	59	190

TABLE VII

Percentages of Those Who Have Degrees

Groups of Cities on Basis of Population	Number of Cases	None	Normal	Private and Sectarian Schools and Secondary Colleges	Universities
A	29	69	.....	24	7
B	44	70	5	15	9
C	86	37	3	37	22
D	83	29	5	26	40
E	145	33	3	23	40
F	181	28	2	23	45
G	289	41	0.3	20	34

Table VII is the same as Table VI in terms of percentages.

Notice that up to a population of 25,000 there is a definite correlation between the size of the town and the amount of general scholarship required of the high-school teachers. In towns of over 1,000, over 50 per cent of the high-school teachers have some kind of a degree, and in towns over 2,500 about 40 per cent have a university degree.

Table VIII shows the general scholarship of the teachers of the various subjects, irrespective of the size of the towns.

TABLE VIII

Subjects Taught	Number of Cases	Percentage with No Degree	Percentage with Normal Degree	Percentage with Private or Sectarian or Secondary College Degree	Percentage with University Degree
English	139	24	2	20	54
English, Latin	24	25	.....	37.5	37.5
English, history	28	54	3	21.5	21.5
English, German	11	18	.....	46	36
English, mathematics	5	20	.....	60	20
English, science	2	.....	.....	100	.....
English, Latin, history	3	33	.....	67	.....
English, mathematics, history	2	50	.....	50	.....
English, Latin, German	2	100	.....	.....	.....
English, history, German	3	33	.....	.....	.....
History	60	28	.....	20	52
Mathematics	92	30	1	16	53
Mathematics, science	24	46	4	21	29
Science	82	25	7	21	47
Latin	66	14	.....	27	59
Latin, German	12	25	.....	33	42
German	55	38	2	16	44
Drawing	25	80	.....	4	16
Music	12	83	.....	17	.....
Commercial	30	63	.....	23	14
Manual training	33	67	.....	9	24
Domestic science	25	8	.....	.....	12

Notice the narrow range in the amount of scholarship of the teachers who teach only one subject. Notice also that the central tendency of the scholarship of these "one-subject" teachers is distinctly higher than that of all of the other teachers in any groups of towns shown in Table VII.

In most instances, the number of teachers teaching a combination of subjects is so small that the results are unreliable. Many of these have been omitted from the table.

Tenure of position of high-school teachers.—The tenure of position of high-school teachers is measured by the number of years in their present position. Table IX shows the percentages of these in their present position for the first year and the central tendency of the tenure of each group of towns.

TABLE IX

PERCENTAGE IN PRESENT POSITION FOR THE FIRST YEAR, AND CENTRAL TENDENCY OF TENURE

Groups of Cities on Basis of Population	Number of Cases	Percentage in Present Position One Year	Median	25 Percentile	75 Percentile
A	29	55	1	1	2
B	44	59	1	1	1
C	86	52	1	1	2
D	83	51	1	1	2
E	145	41	2	1	4
F	181	33	2	1	4
G	289	18	5	2	9

Notice that the tenure of position of our high-school teachers doubles at two points. The breaks are made at the populations of 5,000 and 50,000 respectively.

Total teaching experience of high-school teachers.—Here are considered the types of experience irrespective of amounts and the total amounts of experience irrespective of type.

TABLE X

TYPES OF EXPERIENCE IRRESPECTIVE OF AMOUNTS

	GROUPS OF TOWNS ON BASIS OF POPULATION					
	A	B	C	D	E	F
Number of Cases	29	44	86	39	81	95
As superintendent	0	7	3	3	5	6
As principal of high school	7	7	9	36	11	21
As supervisor	7	9	5	3	4	4
As teacher in high school	83	80	74	95	94	90
As principal of graded building	7	0	3	8	6	10
As grade teacher in town or city	24	30	30	36	38	25
As teacher in country district school	31	39	35	51	27	35

Table X shows the types of experience irrespective of amounts. The figures in the body of this table indicate the percentages of

the whole number of teachers in a given group of towns who have had a given type of experience.

Table XI shows the amounts of experience irrespective of type.

TABLE XI

AMOUNT OF EXPERIENCE IN YEARS

Groups of Cities on Basis of Population	Number of Cases	Percentage without Previous Experience	Median	25 Percentile	75 Percentile
A	29	24	2.5	1.6	6
B	44	16	4	2	9.5
C	86	27	2.6	1.5	5.7
D	84	7	5.5	2.7	8.5
E	145	16	5.7	2.8	10.5
F	178	12	6.7	3.8	11.6
G	236	4.6	9.4	5.3	15.4

Notice that the teachers in the larger towns have had much more experience than the teachers in the smaller towns.

TABLE XII

SALARIES OF HIGH-SCHOOL TEACHERS AND DENSITY OF POPULATION

	Groups of Towns						
	A	B	C	C	E	F	G
Number of cases	26	41	78	73	97	165	193
Salaries—							
$ 500–$ 599	14	18	24	3	.....	1	1
600– 699	12	17	37	18	10	12	2
700– 799	2	6	13	34	27	33	8
800– 899	.....	.....	4	15	27	45	23
900– 999	.....	.....	.....	2	13	39	27
1,000– 1,099	.....	.....	.....	1	6	16	53
1,100– 1,199	.....	.....	.....	.....	3	8	22
1,200– 1,299	.....	.....	.....	.....	.....	6	25
1,300– 1,399	.....	.....	.....	.....	.....	4	12
1,400– 1,499	.....	.....	.....	.....	.....	.....	1
1,500– 1,599	.....	.....	.....	.....	.....	1	11
1,600– 1,699	.....	.....	.....	.....	.....	.....	3
1,700– 1,799	.....	.....	.....	.....	.....	.....	1
1,800– 1,899	.....	.....	.....	.....	1	.....	3
1,900– 2,000	.....	.....	.....	.....	.....	.....	.....
2,000	.....	.....	.....	.....	.....	.....	1
Median	$599.50	$614.50	$640.50	$745.00	$805.55	$880.30	$1,067.00
25 percentile	550.00	555.50	580.00	682.00	787.80	784.00	950.00
75 percentile	658.00	675.00	692.25	799.00	895.00	915.60	1,246.00

The salaries of high-school teachers.—Here is considered the salaries of our high-school teachers by correlating their salaries with each of the following: (1) density of population; (2) professional training; (3) general scholarship; (4) tenure of position; (5) total teaching experience; (6) the subjects taught.

Table XII shows the correlation of the salaries of our high-school teachers to the density of population.

Table XIII shows the correlation between the salaries of our high-school teachers and their professional training.

TABLE XIII

Professional Training in Months	Number of Cases	Median Salary	25 Percentile	75 Percentile
0	96	676	606	910
3	13	775	656	987
6	22	671	591	950
9	29	681	590	815
12	27	731	615	816
15	13	750	662	837
18	19	759	636	875
21	26	725	650	812
24	11	780	691	831
27	17	682	636	769
30	12	799	599	1,199
33	14	825	716	950
36	10	840	680	890
39	4	799	699	899
42	2	850	825	875
45	3	850	775	1,025
48	2	1,199	650	1,550
51				
54	4	899	599	1,199

Table XIV shows the correlation between the salaries of our high-school teachers and their general scholarship. The figures in the body of the table indicate the percentage of the whole salary group who have no degree, or a degree from a given type of schools.

Table XV shows the correlation between the salaries of our high-school teachers and their tenure of position.

Table XVI shows the correlation between the salaries of our high-school teachers and their total teaching experience.

Table XVII shows the correlation between the salaries of our high-school teachers and the subjects taught.

TABLE XIV

SALARIES OF HIGH-SCHOOL TEACHERS AND THEIR GENERAL SCHOLARSHIP

SALARIES	NUMBER OF CASES	PERCENTAGE WITH NO DEGREES	DEGREES		
			Percentage with Normal-School Diploma	Percentage with Degrees from Private and Sectarian Schools and Secondary Colleges	Percentage with University Degree
$ 500–$ 599	58	60.3	1.7	25.8	12.1
600– 699	107	45.8	2.8	26.1	25.2
700– 799	134	35.0	1.5	26.1	37.3
800– 899	110	24.5	1.8	29.1	44.5
900– 999	81	34.5	.....	14.8	50.6
1,000– 1,099	74	40.5	.....	13.5	46.0
1,100– 1,199	34	41.2	5.9	11.7	41.2
1,200– 1,299	30	30.0	.....	10.0	60.0
1,300– 1,399	17	17.6	.....	17.6	64.7
1,400– 1,499	1	.....	.....	.....	100.0
1,500– 1,599	12	16.6	.....	8.3	75.0
1,600– 1,699	3	.....	.....	63.6	33.3
1,700– 1,799	1	.....	.....	.....	100.0
1,800– 1,899	4	25.0	.....	.....	75.0
1,900– 1,999	.....	.....	.....	.....	.....
2,000	1	100.0	.....	.....	.....

TABLE XV

NUMBER OF YEARS IN PRESENT POSITION	NUMBER OF CASES	SALARIES		
		Median	25 Percentile	75 Percentile
1	242	$ 748	$ 632	$ 875
2	127	770	668	950
3	69	833	753	1,045
4	55	870	750	995
5	36	980	837	1,200
6	20	899	775	1,100
7	16	999	840	1,080
8	15	950	825	1,240
9	13	925	787	987
10	8	966	799	1,100
11	2	750	725	775
12	7	1,116	1,075	1,142
13	12	1,212	975	1,281
14	8	1,250	1,099	1,300
15	5	1,025	825	1,088
16	1	850	825	875
17	5	1,050	999	1,200
18	1	750	725	775
19	2	1,100	950	1,250
20	7	975	875	1,162
21	3	1,083	1,041	1,175

TABLE XVI

Total Teaching Experience in Years	Number of Cases	Salaries		
		Median	25 Percentile	75 Percentile
1	76	$ 670	$ 576	$ 794
2	38	676	618	875
3	48	750	690	830
4	58	775	700	885
5	44	899	688	970
6	49	787	678	910
7	32	825	699	970
8	36	899	766	1,042
9	15	926	762	995
10	20	900	700	1,000
11	14	933	816	1,050
12	24	900	720	1,100
13	11	1,050	888	1,225
14	16	925	800	1,100
15	11	1,062	975	1,525
16	5	775	712	1,038
17	9	850	785	975
18	7	825	738	1,025
19	6	900	825	1,050
20	7	925	738	1,025
21	9	988	938	1,088
22	12	900	800	1,100
23	5	950	825	1,075
24	4	850	800	900
25	3	1,050	1,025	1,075
26	5	850	725	1,175
27	1	1,150	1,125	1,175
28	3	775	738	1,038
29				
30	3	1,125	975	1,138

TABLE XVII

Subjects Taught	Number of Cases	Salaries		
		Median	25 Percentile	75 Percentile
English	96	$844	$736	$1,035
History	45	921	800	1,050
Mathematics	63	945	820	1,115
Science	65	946	800	1,115
Latin	51	861	750	995
German	40	881	788	1,025
Commercial	23	878	795	1,050
English, Latin	20	664	628	800
English, history	22	660	569	735
English, German	10	583	545	725
Mathematics, science	21	730	650	875

A few subjects and many combinations of subjects are not included in this table. They are left out because the number of cases were so small that the results were not reliable.

CONCLUSIONS

1. There is a high correlation between the salaries of our high-school teachers and both the density of population and their general scholarship.

2. There is a low correlation between the salaries of our high-school teachers and their professional training, their tenure of position, and their total teaching experience.

3. The science teachers, the mathematics teachers, and the history teachers receive the highest salaries, in the above order.

4. The teachers of combinations of subjects receive much lower salaries than the "one-subject" teachers.

GENERAL CONCLUSIONS

The following general conclusions are drawn in answer to the questions raised at the outset of this study:

1. The annual salaries range from $500 to $2,000.

2. The amount of professional training ranges from none to several years of professional work.

3. The general scholarship ranges from no degrees at all to one or more years of postgraduate work in our best universities.

4. The tenure of position ranges from one year to a working lifetime.

5. The teaching experience ranges from one year to a life's work.

6. In all of this great range the best-prepared teachers are the ones who receive the highest salaries.

7. Boards of education can secure any kind of teachers they wish if they demand the preparation and are willing to pay the price. And within the given range, high-school teachers can secure any salary they wish if they are willing to make the preparation.

THE USE OF SCIENTIFIC MATERIAL IN THE HIGH-SCHOOL COURSE IN ENGLISH[1]

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About a year and a half ago the suggestion arose in a meeting of high-school principals of northeastern Illinois that the content of the study books used in the high-school course in English was somewhat limited. The belief was expressed that the curriculum would be improved if the literature studied in one class included four fields of literature rather than one. It was suggested that we have a year devoted to the study of poetry and belles-lettres, a second year to the study of scientific material, and a third year to historical material. The English teachers of the J. Sterling Morton High School felt that, if this plan were followed precisely, the pupils would be surfeited during the first year with one, and during the next year with another, kind of material, as they now are throughout each of the four years in most high schools.

Hence, a modification of the original suggestion was worked out by our English teachers. Our high-school year, like that of many other high schools, is divided into two semesters. The study books of our former English course were one or two for each semester, and all of them from that class of literature which may be called artistic writing, or, as many term it, literature. This you all recognize as the usual quantity in the English dietary in high schools. The first change that we made was to increase the number of classics studied from one to two a semester to four for each semester. In the second place, instead of devoting the study to one field, according to the ukase of the college-entrance list, we planned to cover four fields of literature, viz., fiction, history, science, and poetry and belles-lettres.

[1] Read in the English Section of the Educational Conference with Secondary Schools, Chicago, April 18, 1913.

Our list of study books now is as follows:

FIRST YEAR

FIRST SEMESTER

FICTION
Dickens, *Nicholas Nickleby*
Dickens, *Dombey and Son*

HISTORY
Franklin, *Autobiography*
Bryant, *Ulysses*

POETRY
Arnold, *Sohrab and Rustum*
Bryant, *Selections*

SCIENCE
Burroughs, *Birds and Bees*
Burroughs, *Sharp Eyes and Other Papers*

SECOND SEMESTER

FICTION
Dickens, *Old Curiosity Shop*
Scott, *Ivanhoe*

HISTORY
Parkman, *Oregon Trail*
Irving, *Alhambra*

POETRY
Lowell, *Vision of Sir Launfal*
Browning, *Selections*

SCIENCE
Burroughs, *Squirrels and Other Fur-Bearers*
Burroughs, *Afoot and Afloat*

SECOND YEAR

FIRST SEMESTER

FICTION
Blackmore, *Lorna Doone*
Hawthorne, *House of Seven Gables*

HISTORY
Parkman, *Conspiracy of Pontiac*
Prescott, *Conquest of Mexico*

POETRY
Shakespeare, *As You Like It*
Shakespeare, *Twelfth Night*

SCIENCE
Higginson, *Three Out Door Papers*
Lyell, *Travels in America*

SECOND SEMESTER

FICTION
Scott, *The Talisman*
Scott, *Quentin Durward*

HISTORY
Lincoln-(Tarbell), *Speeches and Writings*
Brown, *Epoch Making Papers in United States History*

POETRY
Shakespeare, *Julius Caesar*
Shakespeare, *Henry V*

SCIENCE
Tyndall, *Glaciers of the Alps*
Burroughs, *A Bunch of Herbs and Other Papers*

THIRD YEAR

FIRST SEMESTER

FICTION
Eliot, *Silas Marner*
Thackeray, *Henry Esmond*

HISTORY
Fiske, *Critical Period of American History*
Motley, *Peter the Great*

POETRY
Tennyson, *Idylls of the King*
Shakespeare, *Macbeth*

SCIENCE
Darwin, *Voyage of the Beagle*
Thoreau, *Katahdin and Chesuncook*

SECOND SEMESTER

SCIENCE
Huxley, *Lay Sermons.* L. 25
Darwin, *Earth Worms.* R. 25

POETRY
Milton, *Minor Poems.* R. 15
Milton, *Paradise Lost.* R. 15

HISTORY
Macauley, *Warren Hastings.* Me. 12
Macauley, *Chatham.* 9. 15

ESSAY
Ruskin, *Sesame and Lilies.* R. 15
Thoreau, *Walden.* L. 25

FICTION
Hugo, *Ninety Three.* B. 45
Dickens, *A Tale of Two Cities.* L. 25

The study books of the fourth year are omitted from this list because the year's work is planned to be as far as possible a duplication of the course in the history of English literature, which is usually given the first year in college. All pupils who are preparing for college are excused, as a rule, from the fourth-year work in English. Because of the press of the college-entrance requirements in the other departments, it is not usually advisable for a pupil who is preparing for college to take more than three years of English. All pupils who are not looking forward to a college course are required to take fourth-year English work. In this course, however, since it is our effort to make it a replica of the English course in college, there are inevitably no science books.

It will be noted that there are, in this course of three years, twelve titles from that field of literature called science. Many of these works are short; some of them have been used, perhaps, by teachers in the grades.

The first great benefit that comes from the injection of such books into the course is that the English teachers find that there is literature other than poetry and belles-lettres; the second that he must not only read but study in new fields and thus he will be broadened. The pupil at once finds that there are new points of contact in literature. Before, literature always meant to him poetry or some other fine writing which had little to do with the material of the world. Now he makes the acquaintance of some very interesting material. Thus interest is quickened in the world about him, and he is thus more interested in his English work.

A very significant fact in regard to this change is that the pupils like it and do the work with much enthusiasm. High-school pupils are alert for anything which appeals to them as practical. Every English teacher has discussed the English course with the pupils —especially with the boy who "hates English," abhors theme-writing, and sees no use in the study of poetry and the so-called classics. And every teacher has found himself somewhat baffled in his efforts to convince this boy that his English work is worth while. In many cases he hears incorrect English in the home from the father who stands for everything worth while in his opinion. Perhaps the father is inclined to think that we are wasting time when we devote many days to a book of which he has not heard.

The tastes of many of our young people have not been trained so that they appreciate the great things in literature; poetry is a sealed book to them.

It is far from our purpose to step down to the level of these boys and girls, or to lower our standards in the slightest degree. But it is our purpose to broaden our course—to place it beyond the criticism that we are narrow and inclined to draw close, hard lines excluding the great field of subjects which attract the practical young person. The argument that appeals to the pupil is that which shows how his English work is going to be of use to him. To tell him that what he needs when he gets out into the world is the ability to *talk*—to talk on many subjects, to be able to say what he has to say in clear concise English, to answer questions intelligently, to give directions briefly, to meet any situation with poise and readiness—this appeals to him in the light of a possession having a financial value. In this day of vocational interest, the work in English must point to a definite aim with a real value.

And that is what a broad range of books read in the English class accomplishes. The classics alone which have made up the entire course seem to the pupil to be an arbitrary selection from one field—a barring of much that is good and useful simply because it is not found in a certain list of selected books. Is there nothing of modern everyday interest that can be read? Are the interesting books in other fields—scientific, industrial, social, and commercial —not a part of English? When the wide-awake boy or girl is led to read rapidly and to discuss what he reads freely he feels that he is doing something quite worth while. This was recently illustrated in a class that was reading Professor Tyndall's *Glaciers of the Alps*. The assignments were planned to cover sixty minutes of continued reading, with a small allowance for necessary reference to the dictionary but none for detailed work. The pupils were asked to note pages where there were good descriptions, figures of speech, or anything which they noticed during the one reading of the book. In this reading the boys and girls responded with a remarkably keen appreciation of Professor Tyndall's work, calling attention to vivid word pictures and getting real enjoyment from the account.

For the teacher, this change means a great deal. He must

be awake and alert for new fields. He will find himself broadening in his thinking, and instead of being limited to the classics of the old days, he will plunge into new material. As English is used in every other department of the school, so will the scope of the other departments become a field of investigation of the English room.

Not only scientific and industrial material, but reading along all lines is used, so that the scope of home reading and the class study covers a wide territory—modern science, modern drama, books on social conditions, political economy, biography of men and women successful in various fields of the world's activities of present-day interest.

Class reports from the *Survey*, reviews of the Peace Foundation, investigations of industrial conditions in Chicago, and then in more remote fields—all these awaken an interest in the world of today and develop a spontaneous easy use of the English language. Each member of a third-year class was recently given a copy of the Peace Foundation and two days were devoted to reviews of the articles. Each pupil stood before the class and spoke with only such notes as could be written on one side of a four by five card. The result was interesting in several ways, in the use of the English language, the spontaneity of expression, the class interest, and the questions which followed the report. Such use is made of all available material. The value of such work is unquestionable. The difficulty lies in the fact that material is not available. Books which would serve the purpose are not published in editions which are within our reach financially. When the pupils are required to purchase at least eight books and sometimes more each year, inexpensive books must be secured. It is a deplorable fact that we are handicapped in our work because of the lack of such editions. However, we have much that is within our reach. The director of the Thomas Hughes Reading Room of the Chicago Public Library has been untiring in her efforts to help pupils find material for oral and written work.

Every effort is made to prepare the pupils to rely on their own resources. They are accustomed to conduct the class, draw out points of interest by questioning each other. The object is to reduce the amount of talking done by the teacher to a minimum and to give the boys and girls the best that we can in preparation for life.

COLLEGE ENTRANCE AND ADVANCED CREDITS FOR MANUAL ARTS[1]

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There is considered in this discussion only one class of students in the high school, namely, those who elect manual-arts courses in the high school and who leave the high school to enter college work, not including engineering.

It should be understood, then, that whatever is said regarding the kind of manual arts suitable for high schools and the consideration to be given such work by colleges has reference to a very small percentage of the possible shopwork and drawing which may be, and is done, in the high school.

Furthermore, it must be understood that the number of pupils taking manual arts in the high school, and who may be taken into account in this theme, is only a very small part of the total number who elect high-school manual arts of one form or another and at some time during their high-school course.

I am a firm believer in high-school manual arts both for the individual who will use it for college-entrance purposes (and, so far as we are concerned, gets out of it only general educational value) and for the one who elects it in high school as a major subject for the benefit it will be to him in a vocational way. For the last-mentioned type of individual manual arts to my mind is of greater value, as compared with other school subjects, than it is to the individual of the first-mentioned type.

The boy who continues his school education into and possibly through the non-technical college will get out of high-school manual arts, as out of other high-school studies, a general educational value. On the other hand, the boy who completes his school education in the high school, whether or not he completes four years

[1] A paper read before the Manual Arts Section, High School Conference, University of Chicago, April, 1913.

of full high-school work, will get out of manual arts this same educational value and a vocational value as well. As an asset this second value for him is greater than the first because his range of life's activities are more nearly limited to the industrial occupations than the range for the boy who secures a college education.

Especially will this be true if the school administrative officer discriminates between these two individuals and fits the manual-arts work to the needs of each. Emphasizing as he should the vocational value of manual arts for the boy who completes his school work in high school, he will permit this boy both to specialize and to concentrate upon manual arts, whereas he will allow neither of these privileges to the boy who will go to college.

Assuming now that this should and will be a method followed, we can determine at once the kind of manual arts which should be given in the high school. We may classify under two heads: (1) with respect to the number of subjects and (2) with respect to the intensity and application of each subject.

Under the first classification it is proposed that for the boy who completes his school work in the high school as well as for the one who does so in college the greatest possible number of subjects be open for election. The purpose of this, however, is different for the two boys. For the first it is to give an opportunity of choice. For the second it is to give an opportunity for variety of information and practice.

Under the second classification, the intensity and application of each subject, it is proposed that the boy limited to a high-school education be permitted to choose only one, or at best only a few subjects, and that he pursue them as special lines of work. He will do this with one subject only if practice in it in high school is to serve as the basis for his future occupation.

It will be readily seen that I believe in manual arts for vocational ends for at least a certain class of high-school students. I would hasten the day when all of our large high schools that can provide the equipment and the teaching force will throw their doors open to the special student who wishes to get what he can of industrial and all forms of vocational work for occupational ends. When this day comes the privilege of election must be offered in the early

high-school years as well as the later ones, otherwise the special student will not look to the high school for a life-preparation.

For the boy who is to have a college education my proposition is very different. For him the manual arts have an educational value principally. I should therefore eliminate from his course through the high school all specialized courses in manual arts which would be elected by the first-named boy. I should likewise have him take such subjects for a shorter period of time. The application would be general, therefore, and the intensity slight for the future college student as compared with the boy whose high-school work is designed to fit him for work outside of the school.

It will be concluded from this statement that the future college student's high-school manual-arts work will be general in character. Another conclusion should be reached also: that it should be specific as well. By this is meant that whatever is done must be standard in terms of commercial and educational practice, both in content and in method. He will do well whatever he undertakes and he will do it in the best possible way.

Having determined the kind of manual arts for the particular high-school students under consideration at this time, we may now at least speculate with respect to the values of such work and thus lay the foundation for determining credits to be offered by colleges.

It is assumed that manual arts which fulfil the conditions set forth above, good when tested by both educational and commercial standards, will be recognized by most if not all educators as having value which should be recognized in terms of credit. The question of classifying the value and of estimating it in terms of credit both in the high school and in college is quite another issue. However, an attempt to do this may pave the way toward a mutual understanding and a consequent compromise. For the purpose of better considering the question of credit, a statement regarding some of these values is given below. They are given under two heads—technical and general.

Under the head of technical, I suggest: (1) Co-ordination of hand, eye, and mind to make for precision in any class of work which will call upon any *one* or *all* of these members in the solution of a problem; (2) A development of self-confidence which will develop

initiative especially in the solution of problems which requires trained hand and eye; (3) A scientific and consequently an analytical turn of mind. The handling of problems in the concrete, which may be solved in more than one way to get a result, tends toward the analytical thought process; (4) Industrial intelligence and training. Perhaps the most specifically technical result of manual arts is the definite knowledge and skill which an individual acquires and which are necessary tools in a possible future vocation.

The general values will naturally be the result of certain individual or combined technical values and there will be fewer of them. There are listed only two, viz., (1) General information regarding materials, tools, and processes and their application in life's activities, particularly those which we term industrial; (2) A development of the faculties of judgment and reason in scientific subjects. As between judgment and reason on one side and memory on the other, the manual arts will develop the former while the academic studies (especially those which do not require motor activity, such as the languages and pure sciences, for example) will develop more particularly the memory.

It is doubtless true that some high-school subjects bring returns which cannot be credited at all to manual arts. It may also be true that the manual arts yield only a small measure of certain general benefits which other high-school subjects are said to give in large measure. But it is doubtful if any one high-school subject tends to develop an individual in as many directions and, in the aggregate, so extensively as do the manual arts.

For this reason we wish to grant them due and proper credit. What shall it be? Entrance college credit, advanced college credit, or both? Let us consider for a moment each question.

First as to entrance credit. If our position has been fairly taken up to the present point there can be no tenable ground upon which to argue against entrance credit. The question then must be, How much entrance credit?

It has been argued in the past by some people that, as a new subject, comparatively speaking, and, in justice to the older and traditional high-school subjects, manual arts must first prove their worth before asking for credit proportional to that given the older

subjects. Somehow I begin to feel that we have reached the time when, in our best-organized departments, which by no means are necessarily in the largest high schools, we can say: The test has been made. If this is true, then we should ask for what we believe we deserve.

This is what was done in Wisconsin two years ago with the result that the state university now grants up to and including four credits for approved high-school vocational work of which manual arts is one of four. A unit is granted upon the basis of one school year of thirty-six weeks in which manual arts are taught five double periods each week. In other words in this respect it is placed upon the same basis as the sciences. In granting this credit Wisconsin has practically conformed to the recommendation of the Western Drawing and Manual Training Association and to that of the North Central Association of Colleges, as well. Five credits for entrance are given by the University of Chicago for vocational subjects.

Someone may say that such a grant will develop the subjects of manual arts too rapidly in the high schools and consequently the quality of work will be lowered. To such I would say: Let the quality standard be kept up by a properly conducted inspection and censorship on the part of those who make the grant.

Another says: Such a liberal grant will draw back into the high school such work as may be done in the college before the high school is ready for it. I doubt this. In the first place let us remember that a very little of this work is done in any college except by engineering students with whom we are not now concerned. Again, the college, so far as my observation goes, is rather jealous of its possessions and anxious to advance its own standard of work as soon as the high school will do, sufficiently well, the work which the college is now forced to do. Is this not true in the languages and mathematics?

I feel that the manual arts must be dealt with by the college on the same basis as any other high-school subject. If it is worthy of credit at all give it all it deserves after it has been properly inspected as to both qualitative and quantitative elements. The maximum credit therefore may be four units if 360 school hours

are required for a unit of credit and if the high schools give five 90-minute periods per week to manual arts. Most of them do. I believe the recommendation of the North Central Association of Colleges is 240 hours for one credit. Three hundred and sixty double periods equal 270 hours, hence the suggestion which I make is a perfectly fair one.

Now when we consider the question of advanced credit in the college for high-school manual arts we shall probably agree that if it is to be given it must be on the ground of its being equivalent to a certain amount of similar work done in the college. This is the basis I believe upon which advanced credit is given in other subjects.

This being true, we are limited, except in the case of colleges maintaining manual-arts departments, to the engineering college with which this discussion does not deal.

If I may digress just for a moment, however, to consider this case, I would make the suggestion that advanced credit granted by engineering colleges for some high-school manual arts seems to me to be perfectly legitimate. In the case of some engineering colleges, at least, the type of the work done in the Freshman shops and drawing-rooms is not very different from, and the standard of execution no higher than, that done in many of the best high schools.

For some time past it has seemed to me that the prevailing custom of the engineering college to grant advanced credit on the basis of twice as much work done in the high school as in the college is an imposition, unless it is evident that the work done in the college is of a very different standard from that done in the high school. To my mind the reverse condition is often true, for the high school often does as good work and even more of it than does the college. To be justified in maintaining the present relationship the college should demand of its Freshmen a higher standard of excellence in a more advanced type of work than that done in the high school. The situation is the same in the college of liberal arts which maintains a manual-arts department. Certainly it is not fair to students to demand a repetition in college of high-school work.

When the colleges do set a different standard in their manual-arts work than that required in the high school and continue to offer advanced credit, they must demand of high schools who receive

the advanced credit the equivalent of college work This will tend perhaps to inspire the large high schools to do a higher standard of work, and to discourage the smaller high schools from trying for advanced credit because of their limitations in equipment and other facilities. Both kinds of high schools would thus be benefited by such a discrimination; the one would be tempted to do the thing which it should be able to do in many cases; the other would be content to do more satisfactory entrance-credit work.

I hear someone say that this will not be true, for the human desire to ape will still exist and the smaller as well as the larger high schools will strive for the advanced credit. The overcoming of such a difficulty will be possible when the examiners of the high-school work are representatives both of the high school and of the college; when these examiners would determine the requirements for advanced credit by arbitration based not only upon the time element and upon quality and quantity of work, but also upon the amount of equipment and the purpose back of the work done. It it quite possible that in the college a very different method of approach may be made in both drawing and shopwork than can be possible in a high school.

The conclusion reached, as a natural result of this analysis is:

1. Let the college grant entrance credit for all worthy high-school manual-arts work upon the basis of an investigation of the quality and quantity of high-school work made by a committee made up of both high-school and college men. An equitable adjustment may be made by this means and a full college unit will be given for 360 high-school periods of approved work.

2. Let the college grant advanced credit only to the larger high schools which are equipped for college work and do its equivalent. The granting of such credit should be the result of inspection by the college concerned. It would seem that very much more equitable results would be secured in the matter of college credit for high-school manual-arts work if these suggestions were more uniformly carried out.

But the granting of credit, whether it be entrance or advanced, is a part of the *mechanics* in a college organization. Back of the granting of credit there must be a high-school schedule which will

not only permit, but even encourage boys and girls to elect the manual arts. The ordinary means provided in a high school for the election of a subject—not one of the traditional favored few—is (1) to create a course with this subject as a center or hub, or (2) to allow the subject to be taken as an additional study.

It would seem to me much more satisfactory to the high-school teacher and to the principal as well to organize all four-year high-school courses about some *central core* made up of required studies such as English, history, and science, and to permit of free election for all other studies. By this plan every four-year high-school student would have the selection of at least *one-fourth* of his studies from year to year. He would be able to transfer from one course to another without serious handicap, as the core for each course would be the same, and he would never be obliged to carry some subject which he particularly desired as an extra.

Such an organization would, first of all, permit students to elect manual arts or other vocational studies. But, as it has been intimated, more than this is necessary if the high-school student is to have a course which is balanced between the academic and vocational work. *Administrative officers must encourage the election of vocational subjects by high-school students who are preparing for college.* This is perfectly feasible both from the standpoint of college requirements and from the standpoint of value to the individual. The average high school schedules sixteen units for graduation; fourteen are required for entrance to college, four of which may be earned in vocational work. Thus there are six high-school units for every prospective college student which may be secured by the election of vocational subjects, at least two or three of which might profitably be manual arts.

The thing which is needed on the part of administrative officers is *vocational guidance* and *encouragement.*

THE INSTITUTIONAL HIGH SCHOOL AND WHAT IT DOES FOR THE COMMUNITY

R. L. SHORT
West Technical High School, Cleveland, Ohio

Since the discussion of the red schoolhouse and its evolution into the great public-school system of today, pages upon pages have been written in discussing a wider use of the school plant. Much has been said for and against the academic school, the cosmopolitan school, the high school of commerce, and the technical high school. However, little has been said of the motive part of education or of the institutional side of the great modern school.

In the larger cities the school plants costing hundreds of thousands of dollars for grounds, buildings, and equipment must be held to strict account for definite returns from so large an outlay of money. The questions, "What can the high school do for the boy?" and "What can the high school do for the girl?" mean far more than material preparation, far more than academic or trade education during the allotted hours of the school day. Such institutions ought to be open day and night for the entire year. They should offer not only preparation for life's work from the financial side, but must give training which produces helpful citizens and a healthy community.

In the technical schools it is not difficult to find a motive for education. Motive is a large factor in discipline in schools of this type. The vocational school is easier to discipline than is an academic school, because the physical activity of the child absorbs much of his surplus physical energy. To the physical activity in a manual-training school add the motive in a technical school and you have ideal conditions so far as the teacher is concerned. Although the pupil does not usually specialize when he enters such a school, he has in most cases determined somewhat definitely his career before he is half through his first year.

Yet the problem of administration is a more difficult one. The modern school to produce maximum returns to the taxpayer must

be an institutional high school. The institutional high school must not only be what is now the function of the best technical schools, but must add to this more of the social and civic center work. Perhaps definite outlines of what is done in a particular school may be of greater interest than general definitions.

The West Technical High School of Cleveland attempts to shape its day courses so that the pupil has as great an earning power as possible whenever he stops school. The contact with the pupil and his home is as close as can well be. Each man teacher is assigned 30 boys from one neighborhood. These boys are *his* so long as they are in school. The teacher visits each home, makes friends with the parents, learns the boys' surroundings and tendencies, and therefore administers knowingly, not blindly. Each pupil at the plant works under the best possible conditions of administration whether it be in his 15 hours of book work, 15 hours of shop, or 3 hours of physical work a week. He works under no rules. He is a citizen and has the freedom as well as the restrictions of a citizen. He has privileges of which his father never dreamed. He has a 6-acre athletic field where he may play. He has at his command tennis courts, basket-ball courts, an outdoor study-hall, an outdoor gymnasium, indoor gymnasiums, shower-rooms, a library, a music-room, a domestic science restaurant.

Nor does his less fortunate brother who works in the daytime have much to regret in these advantages. Instruction in this school goes on continuously from eight-thirty in the morning until nine at night. The boy or girl, man or woman may come from work directly to the school. Here he may keep his clean clothes; a locker and shower-bath both are ready for him. He may exercise in the gymnasium, read in the library, get a wholesome supper at cost in the school café. This café is a part of the domestic science department and is run at cost on scientific, hygienic principles.

At present 65 printers' apprentices and journeymen are released by their employers earlier than the regular closing time. They reach the school at five o'clock, have an hour of printer's art under expert instructors, have half an hour in the gymnasium, then a shower bath and their supper, and are back at work at seven o'clock. This time in the printshop. At eight o'clock they leave

for home, better for the association which they have had at the school and better prepared for the trade which they follow. This arrangement is open to all trades and is taken advantage of by hundreds of men and women in Cleveland today. The school from three-thirty o'clock until nine is the working-man's college—a college which brings immediate returns to the individual and to the community.

Similar schools of the institutional type will do much toward answering the criticism of waste and expense in the public schools. The old-type school ran five hours a day for a time not exceeding two hundred days. What business investment of half to three-quarters of a million and with ordinary overhead expense could stand but one thousand working hours a year and live? In schools of the institutional type the teacher must forget that class instruction constitutes his day's work. That is only one-half his responsibility. Such schools mean consecration to school work, long hours devoted to the pupils' good, ofttimes repeated visits to a home, a long day. The increased duties are compensated by big educational returns and an increase in salary. These schools do not mean that a teacher is free at two, three, or four o'clock five days a week and all day Saturday. They mean that a teacher is subject to call twenty-four hours a day, seven days a week. The teacher's average time in the school building is nine hours fourteen minutes, daily; moreover, this does not include the time devoted to visits or homes or to outside preparation for class work. To the boy such schools mean better education, larger opportunity, better appreciation of the teacher, a clearer understanding of why school is; to the parent they mean a knowledge of school purpose and discipline, a feeling that the teacher has a personal interest in the individual pupil. In short, such schools mean that the school and the parent must divide educational responsibility. To the community they insure a better citizenship, better workmen, more earning power, improved civic conditions.

Such schools are possible in every community.

A PLAN FOR OUTSIDE READING[1]

J. A. WALLACE
Crosby High School, Waterbury, Connecticut

Direction of the whole reading of our pupils is becoming more and more desirable, that the necessarily limited and inadequate class work may bear proper fruit. Though a pupil read Shakespeare and Milton in class, it will avail him nothing if his reading outside is vapid and cheap. Few of our pupils come from homes of culture. Their knowledge of, and interest in, good books may be placed at zero. It is the privilege of the teacher to awaken these minds to the beauties of literature. But he cannot do this successfully with simply the means provided by class reading. In fact, it has been my experience that pupils, on account of their peculiar feeling that anything read in class must be looked upon as a task, will get much more of a lasting love for literature from reading done outside, in which they have a larger latitude to choose the time and circumstances under which the reading may be done.

The mere posting of a list of books is the smallest part of a successful plan of outside reading. As everywhere else in teaching, the personality of the teacher must be brought into play, continually directed, not toward driving pupils to read by set requirements, but toward arousing their curiosity and interest so that they will wish to investigate for themselves. To accomplish this there must be a cordial feeling between pupil and teacher.

With these ideas in mind, the English teachers of the Crosby High School, some three years ago, introduced a plan of outside reading which has had all the earmarks of success. Frank talks with pupils outside of school and written opinions from pupils in school have convinced me that in this school, at least, the plan has more than justified itself.

The plan is very simple. At the beginning of the year a list of books is posted at the school and at the city library, from which

[1] Read before the New Hampshire State Teachers' Conference, May, 1912.

pupils are required to select one book a month. At the end of the month they are given a sheet of paper divided into four longitudinal sections. At the top they write their name and class. At the heads of the four columns are printed "Name of Author," "Title of Book," "Date," and "Remarks." The pupil fills in the spaces each month, recording as many books as he has read, although only one is required. Under "Remarks" he is told that he is expected to write whatever he thinks he would like to say about the book. It is impressed upon him that these remarks are to be purely informal. Cut-and-dried comments are discouraged. The pupil is made to feel that in filling out this sheet he is not doing a school exercise, but is making a record for himself, which he will bind and keep as a guide to later reading. Sometimes a pupil writes a single line under this heading, and sometimes a whole page. How much he shall write, or of what nature it shall be, is left to him to determine. The teacher suggests, however, that, as this is a record which will probably be consulted in later years, it might be well to say whether or not he liked the book, and to give a hint of the plot, that the written record may later recall the book to mind. I wish to emphasize the fact, however, that these are suggestions merely, and the pupil is at perfect liberty to follow them or not as he sees fit. In the opinion of the teachers the requirement of any formally planned remarks would largely nullify the whole system.

As this is a record which the pupil is filling out for himself, it is also impressed upon him that he should put down his honest opinion of the book, and not what he has heard others say of it, or what he thinks the teacher would like to have him say. It is pointed out to him that his opinion may or may not agree with the opinion of others. In the latter case there is room for suspicion, at least, that the trouble is with himself and not with the book. Still, people do have different tastes in reading as well as in everything else, and it may be that this particular book is not of the class which attracts him. Pupils are warned, however, not to condemn a book too hastily. If they have read it in the Freshman year and have not found it to their liking, they are encouraged to try it again in the Junior or Senior year, when their tastes in

reading are better formed. Many do later try a book which they have very much disliked in an earlier year, and find it quite the most delightful book they have ever read. There is nothing like an experience of this kind to teach a pupil that his standards of judgment are not yet formed, and that he should not be too quick to blame the book for lack of interest. Teachers often relate experiences of their own along the same lines. This does much to rid the pupil of the idea that he is supposed to like every book that is called a classic. Talks of this kind also make the pupil respect the openness and sincerity of the teacher. If a teacher professes to like every book on the list, although the pupil does not say so, in his heart he accuses that teacher of cant. He is right, too.

In fact, the teacher's influence in such a plan is one of the most important features. In our school it is planned to take at least one day a month from the regular work for a book-chat with the class. I used the word "chat" advisedly; there is no cut-and-dried recitation by the pupils or lecture by the teacher. It is a frank and friendly chat between the two. A teacher who has read widely and has a real love for books can exert an unbelievable influence. Here is the place for him to talk frankly of his own experiences in reading books—of his many attempts to read a certain book the first few chapters of which were uninviting, and of his perseverance until he finally reached a chapter where the book began to unfold and became so absorbingly interesting that he could not leave it until he had read to the very last page. Such a personal anecdote will impress on the pupil that he must not lay aside a book because it is not immediately interesting. He must persevere until he has read enough to form an honest opinion. To do less would be unfair to book and author.

In these very informal monthly chats the teacher also answers any questions pupils may care to ask. One of the most difficult questions to answer satisfactorily concerns the modern light novel. Many pupils who find Scott, Dickens, Cooper, and Jane Austen uninspiring become intensely interested in the latest "best seller." Naturally they cannot understand why a book which is anything but interesting should be praised so highly, while another is condemned or passed over in silence. With the boys the question

of the dime novel will often come up. Ridicule or scornful condemnation, as Arlo Bates has pointed out, is a poor way to meet the difficulty. If you condemn in wholesale terms books which your pupils know are absorbingly interesting to them, you will not make converts; you will simply lessen your hold on your pupils. They will make up their minds that your way of looking at things is so far removed from theirs that it is hopeless to expect you to understand. In the same way you might condemn football, but no healthy boy would eschew football on that account. He would simply wonder at you as a strange sort of creature, and keep right on playing. There is nothing that will lessen your influence more than to have your pupils feel that you are out of sympathy with them and do not look at things as they do. Much tact is needed to show a pupil that one book is a classic and the other is trash. I believe that a frank admission of the good qualities of the modern novel and a fair statement of its shortcomings in a way that will appeal to the pupil's own judgment is the only successful way to deal with this difficult question. Only the exceptionally sympathetic and tactful teacher will be entirely successful in doing this.

All sorts of questions are asked in these chats, and the teacher loses no opportunity to get his pupils interested in a particular book or author. I find little details of the author's life very often helpful. A sketch of the plot, or a recital of some particularly striking incident in the book also helps. Reading a chapter now and then should arouse curiosity and interest. Each teacher will use the means best adapted to himself; but every teacher should realize that upon his own personality rests in a large measure the success of the plan.

The hardest part of a plan like this, to work out with success, is the posted list of books from which pupils are required to select one book a month. At first we tried a very full and elaborate list of several pages, with books on travel, fiction, history, biography, science, etc., included. We hoped that we had provided for all tastes, however eccentric. We had our pains for our work; the pupils chose practically nothing but fiction. Do what we would, we could not get them in any numbers to read travel, biography,

or history. After a year's experience we frankly recognized the impossibility of driving them, and so lopped off all but fiction from the list. I should like to have my pupils read something other than fiction, but I have given up the attempt. Other teachers may find their experience directly contrary to mine; I can relate only what mine has been. There are teachers who succeed in getting high-school pupils to read for pleasure *Paradise Lost*, *Rasselas*, and even *Prometheus Unbound!* I can only hold up my hands in astonishment. Either these teachers and pupils are of a very unusual kind, such as I have never met in captivity—or the pupils are deceiving themselves and their teachers. It is very easy to be satisfied, and indeed edified, in this matter of outside reading. Every teacher of experience knows, or should know, that pupils have a most accommodating way of liking what they think they are expected to like, especially if their marks are affected thereby. It is easy for a teacher to think he is getting remarkable results, when, in fact, he is getting no results at all. Frank personal talks with his pupils and rigid probing of their opinions are necessary to keep a teacher properly balanced.

Our list, then, is now a fiction list. Last year I restricted it in the Junior class to a very few authors such as Scott, Dickens, Cooper, Holmes, Howells, Jane Austen, Charlotte Brontë, Thackeray, etc. My idea was that a short list would lead pupils to read two or more books by the same author, instead of roaming about the list in a desultory way. I impressed upon them that they could not express any opinion worth while on an author until they had read more than one of his works. I encouraged them to read several books by the same author before they passed on to another author. The reasoning, I think, was sound; but the pupils found the list too much of a restriction. I have enlarged it this year.

I find that pupils in reading fiction have little idea of character-drawing, and practically none of style. Their interest is wholly in the story. If there is a good story, it is a good book, regardless of slovenly style, caricatures rather than characters, or forced situations. They are also interested in the direct rather than in the symbolic story. This makes Hawthorne's books, delightful

as there are to us, lacking in interest for them. They want a plain, unvarnished tale, and Hawthorne gives them a highly elaborate web of fancy. Mistakes in making up lists of books for such reading occur very often because teachers do not realize that students are young and therefore undeveloped in mind. Many excellent books cannot be read by them at this time. Nor can they be expected to like the same books as their elders. We must carefully pick and choose the books best fitted to their undeveloped state. The others must be left for later years.

At the close of the school year I usually ask my pupils to write on a slip of paper their opinion of the plan. I tell them that I value their honest opinion, be it favorable or unfavorable. I also urge them to make any criticisms and suggestions that occur to them. Some of these criticisms I quote below, transcribing them with all their solecisms and crude constructions. I would say in justice to the pupils that they were written hastily in class. Teachers, I am sure, will more easily believe them genuine than if they were carefully edited beforehand.

Here is one from a girl of rather less than average ability and enthusiasm:

> I think this idea of reading a book and bringing in a report every month, is a very good one. I have had two year's experience with this kind of work, and I find that it has helped me to read some good books that I never would have read otherwise. *David Copperfield* for instance. I don't think that I ever read a book that I enjoyed as much as I did this one. I would probably never think of reading this book, if I hadn't seen it on the list that we were to select from.

Here is one from a boy, one of the best in the class, who likes to think for himself:

> At first I hardly thought this book business was going to be of any value—it seemed oppressive to think that you *must* read something. That in a way took away the pleasure in reading a book that otherwise would have been throughly enjoyed. But as the year went on, the burdensome part of it was lifted up, and now although some of the books I read are a real struggle, I feel in the end that this idea has been a beneficial thing. For, if I knew that I did not have to read some of these books, I am extremely sure that I would not have gone beyond Chapter 2, or hardly reached that far, and now that I have really read them, I have found that they were good after all.

This girl sees the value of keeping records for later reading:

I consider a book review as both interesting and beneficial. It is interesting to write your opinion of a story and, perhaps, a short outline of it, and it will certainly be interesting, in later years, to read the accounts you have given and contrast them with your later formed ideas of a book. It is also well, if at present you do not like a book, to re-read it later and see if it makes a better impression on you.

I know I enjoyed reading over the accounts of books I had read in my Freshman year, spending a whole afternoon reading and thinking over what I had written.

The following is from a boy who has a very pronounced bent toward science and mechanical contrivances. His definition of the dime novel I find especially refreshing. He is a very outspoken and manly boy, and to have him assert frankly that he was cured of the dime novel habit is worth a good deal in judging the results of this plan:

The direct object of the experiment failed partly in my case, but another result I think a great deal more important, has come out of it.

In the Freshman year we were compelled to read a good book each month. I did not like it. I was accustomed every week to go to the news-dealer and buy a "dime novel" as they are popularly called, and get myself excited in wonderful escapes, horrible deaths, blood-thirsty villians, clever heroes, and bad English. When I was forced to get a library book, I had to abandon one of my dime novels each month. But I found after I had read two or three library books, that they were made of infinitively better stuff, i.e., better plots, more reasonable characters, and better English. The result was that I stopped reading dime novels. My English is bad as it is, but what would it be if I continued reading trash?

Through this system I also got well acquainted with the ins and outs of a library, and I think that is also something I would not have gotten were it not for the monthly book review.

This girl sees the value in leading to thoughtful reading:

Furthermore, the fact that we are to write a review of the book makes us think about what we have read, so that now, no matter what book I read, I always, after finishing it, sit and think about it, pick it to pieces, etc.

Books lying on the shelves at home for years took on a new interest to this pupil:

I think that the reading of one book a month has been a pleasant and instructive task for me. I have read a few books that I should not otherwise have read; For instance, the *Tale of Two Cities* has been resting on a shelf at

home since I can remember. It had no pictures and the print was rather small, making the book look forbidding in contrast with the light novels I have been accustomed to reading through in an afternoon. Other girls at school were reading the book and curiosity and a sense of duty made me read it. The result is that I find Dickens' books a pleasure and intend to read more during the summer.

The discussion feature appeals to this one:

I have enjoyed the book a month plan very much this year. Not only has it brought me into contact with several books which I have liked, but it has also made me want to read more and has made me plan some reading for this summer that otherwise I should not do. I think the giving up of a period once in a while to talking about the books that have been read and are about to be read, adds much to the interest of English.

These opinions of pupils will show, I think, what the general feeling of the pupils themselves is toward the plan. Whatever criticism has been made by them is not very deadly. It is concerned with the time taken in reading, and the feeling of compulsion that goes with it. These are shortcomings, but no method is ideal, and this is far from ideal.

We believe that the love of good literature has been very much increased in our school by this plan. It has in many cases undoubtedly developed a desire to read good books in place of poor, and has very much increased the intelligence with which a given book is read. We have strong hopes that the desire for good literature thus awakened is no mere transitory appetite, but will grow during the coming years. This is too much to expect in all cases, but if three or four of our pupils become lovers of literature through our efforts, should we not be satisfied?

EDUCATIONAL NEWS AND EDITORIAL COMMENT

THE SUPERINTENDENT AND THE BOARD OF EDUCATION

In the two greatest school systems in this country the question of the authority of the superintendent and the question of the relation of the superintendent to the Board of Education has arisen for very emphatic discussion during the past few months. Mrs. Young as superintendent of the Chicago city school system resigned, "for the purpose," as she put it "of maintaining harmony in the administration of Chicago schools." The Board of Education requested her to withdraw her resignation after a protest on the part of many citizens, especially the women of the city. Mrs. Young made it clear during the whole of the discussion that the fundamental question at issue was the question of her ability to carry educational policies through the Board of Education. Some of the members of the Board of Education, on the other hand, were evidently determined to deal directly with such matters as the selection of textbooks. In New York City the symptoms of dissatisfaction on the part of the Board of Education with its sphere of activity appear in somewhat more aggressive form. The president of the Board in a report addressed to that body on July 9 of this year writes as follows:

> When you began your work of the present year there was existent in this building a time-honored tradition that a Board of Education should not presume to deal first-hand with education itself, but should be confined to matters of finance, equipment, and perfunctory voting upon measures to be perfected by those whom it was a usage to designate as educational experts. Some years of adherence to this theory had built up a system so unsatisfactory as to result in a compulsory investigation of the schools and in published declaration of their formalism, rigidity, and obsolescence. In a review of the investigators' findings, the head of the commission concluded the service of education in this city to be seriously defective and the Board of Education at not sufficiently close quarters with its work. But several months before the publication of these criticisms you, from your own experience and from your own desire of progress, had anticipated them by co-operative action in taking up, considering, and passing upon vital questions directly concerned not only with sites, buildings, and supplies, but with the actual training of children.
>
> In accordance with this policy you have provided for a special committee to represent you in the preliminary steps leading to the nomination of district superintendents. Your High-School Committee has performed a similar service affecting the nomination of high-school principals. In both of these changes

you have realized that your responsibility to the city is not fulfilled by a perfunctory vote, but that, as you are held ultimately responsible, your judgment should find the freest exercise in important matters of this kind and early enough in the proceedings to escape embarrassment through desire to avoid personal disparagement of candidates nominated without consulting you.

Both of these cases bring up in very concrete form the general administrative question of the relation of the Board of Education to the conduct of schools. It is the belief of educational people that a city superintendent is the technical officer who is charged with the responsibility of conducting the schools. When the president of the New York Board exemplifies a different theory by saying that the responsibility for the appointment of high-school principals belongs to the Board of Education, he makes a statement that is unacceptable to the superintendents of schools throughout the United States. It is indeed true that the Board of Education will feel the effects of any bad appointments to high-school positions. They undoubtedly will be called upon where the high schools are unsuccessful to see to it that the fundamental organization of the schools is modified, but in general they are more likely to find it expedient to organize the schools through the superintendent than to try to judge of the qualifications of high-school principals directly in their board meetings.

The report of the president of the New York Board is an added evidence of a hostility against the superintendent of schools on the part of certain members of the New York Board which has been no secret for some time. Superintendent Maxwell is, however, able to cope with the situation without being brought to the point of offering the board his resignation.

The schools of either one of these two great cities present unique problems in school organization, and sooner or later there will undoubtedly be a much more generally accepted principle underlying the relations between board and superintendent. In the meantime these cases make it clear that the educational people of the country have it as one of the important obligations to define clearly the relation between the superintendent of schools and the boards of education.

FURTHER STATEMENTS REGARDING THE PROBLEMS CONFRONTING THE SUPERINTENDENT

The Bureau of Education at Washington is performing a very distinct service by sending out certain inquiries to different classes of schools and furnishing to the press of the country the returns on these

questions. Recently an inquiry was sent to superintendents of cities of from 2,500 to 30,000 population asking them to make a statement of the questions which gave them the greatest difficulty in organizing their schools. Two pages of returns from these inquiries are put into the hands of the editors of journals and newspapers. It is not possible here to enumerate all of the difficulties encountered by these superintendents, but the following list will appeal to those who have charge of schools and serve to set forth very vividly the difficulties encountered by school superintendents in the ordinary routine of this work:

1. How to test the efficiency of teachers. What should be the standard.
2. How to deal with backward and retarded pupils.
3. How to secure competent janitors.
4. How to arouse interest among parents. (This question was asked in nearly all the letters.)
5. How to control mothers' associations.
6. How to prevent individual school-board members from interfering with teaching methods and discipline.
7. How to make and keep teachers progressive in scholarship and professional training. Many superintendents complain of older teachers who have taught for a number of years and appear to be unresponsive to new ideas.
8. How to secure and retain competent teachers and how to prevent the election of incompetent "home teachers" who may be related to some member of the board or to some prominent citizen. Judging from the tone of the letters received, not many superintendents in cities of less than 10,000 population are consulted when teachers are elected. One superintendent writes, "I wonder in how many cities of 30,000 population and less the superintendent is allowed to select his own teachers. In my experience I find boards of education less willing to take the superintendent's recommendation in regard to teachers than in almost any other thing, and I am at a loss to understand why, unless it is a matter so personal to them that they hesitate to follow the recommendations of the superintendent in this respect." Many others write in substance: "Boards are loath to give the superintendent a free hand in selecting teachers. They are prone to consider teaching positions as half perquisites for relatives, a daughter of an old friend or business associate. They also employ 'home teachers' often irrespective of qualifications in preference to competent teachers who live in another city or state." A superintendent writing on the same question, however, says: "I believe that in a majority of instances where nepotism prevails, where personal favoritism influences the board, where politicians name the teachers, the fault is with the superintendent rather than with the board. A tactful and fearless superintendent can secure the co-operation of his board if he will."

REFERENCES ON VOCATIONS

The Brooklyn Public Library has issued a pamphlet which will be of interest to many teachers. It is a list of books and references on vocational choice, guidance, and training. The list shows such documents on these subjects as are to be found in the Brooklyn Public Library. It can be obtained by sending to the Library, 26 Brevoort Place, Brooklyn, N.Y. Teachers who wish to inform themselves on this subject and teachers who are looking for material to put in the hands of their students will find this list very helpful in directing them to a large body of literature. It is a commonplace in present-day education that the children ought to be informed about possible occupations. Some of the subtitles that are typical and show the range of topics covered in the list are Telephone and Telegraph Operating, Stores or Shops, Retail Merchandise, the Stage, Stenography and Typewriting, School and Philanthropic Work, Railroading, Salesmanship, Nursing, Navigation, Music, Millinery, Library Work, Forest and Lumbering, Flower Growing or Selling, and so on through a long series of occupations which ought to be of interest to school children.

SOCIAL CENTERS

The Russell Sage Foundation issues a pamphlet prepared by Mr. C. A. Perry entitled *How to Start Social Centers*. This pamphlet gives very helpful and explicit advice on the methods of getting people and funds together for the "wider use of schools." For example, one section of the pamphlet is devoted to the discussion of the topic "creating public sentiment," another to "removing legal obstacles." The pamphlet will help teachers or citizens not connected with the school who wish to organize this type of work.

CREDIT SUPERVISED AND UNSUPERVISED

The following item is clipped from the *Topeka Capitol*.

Sunday-school teachers who attend the state normal schools will be given advanced standing for their Sunday-school experience, according to plans announced yesterday by the new board of administration. Credits are to be allowed not only Sunday-school teachers, but also to any who have taken active part in church work that might have a bearing on teaching in the grade school of the state. The plans for this innovation are being worked out by the board.

"The board of administration," said President Ed F. Hackney, "together with Presidents Butcher and Brandenburg and Principal Lewis, the new heads

of the state normal schools, are working out a plan for giving advance standing in the normal school to those persons who have had teaching experience, supervising experience, experience as teachers in Sunday schools and other church work, and to those who have had experience in other life work that would especially qualify them for the teaching profession."

Evidently the recognition of all possible forms of intellectual activity is becoming very active in Kansas. In the meantime it seems not inappropriate to point out a difference between credit with supervision and credit without supervision. When an institution gives its certificate to an individual, that institution presumably guarantees to the world that the individual in question has performed some worthy intellectual work. This guaranty ought certainly to be based upon some knowledge of the work for which credit is given. Many of the public schools are now recognizing the propriety of supervising the work that is done at home, such as work in music or in some practical activity which is not provided for within the school walls. But in all of the cases where this is done properly there is some effort made to ascertain the quality and value of the work for which credit is given. Doubtless in the enforcement of this new rule in Kansas the same vigorous effort will be made to find out the quality of the work. If the State Normal School can in this wise assume supervisory control over the work of Sunday schools, much will be gained for education. There is danger, on the other hand, that the temptation will be very strong to grant credit for work that has not been properly supervised. If that is done in this or any other institution, the certificates granted by the institution will deteriorate just in proportion to the freedom with which credit is given for work which is not supervised.

AN EDUCATIONAL SURVEY

The *Daily Republican News*, of Hamilton, Ohio, devoted three full pages of its issue of Saturday, June 7, to a thesis entitled "Industrial Education for the City of Hamilton, Ohio," prepared by Mr. Winifred Hugh Brown, a student in the graduate department of education at the University of Wisconsin. The fact that this thesis attracted attention in the city as an important document on which to base the organization of the schools is itself an indication of the general interest which is aroused these days by any careful and systematic examination of the school situation. The thesis itself is a notable contribution to the general literature of school surveys and to the literature of industrial education. Mr. Brown gives some figures which show the efficiency of the schools

of Hamilton in retaining the children of that city. He then proceeds to outline the industrial condition, comparing the situation in Hamilton with the situation that has been studied in Massachusetts. He gives the classification of the causes why children leave school. He gives a detailed statement of the arguments in favor of industrial education from the point of view of the manufacturers, the labor union, and the interests of the community. He then describes the various lines of work which can by any means be regarded as contributing to industrial education in the city. The whole report is well worthy of imitation and illustrates the possibility in each city of working out in detail on thoroughly scientific methods a statement of the local conditions upon which the organization of the school system must be based.

AN EXPERIMENT IN VOCATIONAL EDUCATION

An experiment in vocational education is to be tried in Louisville, Ky. The Consumers' League of that city has been co-operating with the Board of Education in the effort to open some sort of special training for school children who would otherwise drop out of the school. A member of the League, commenting on the new plan, makes the statement that only 10 per cent of the school children in the city of Louisville go to the high school. For the remaining children of the city it is important that some kind of educational opportunity should be organized. The Consumers' League therefore secured, with the co-operation of the Board of Education, the advice of Professor Leavitt, who visited the city and looked into the commercial and educational conditions and finally recommended the establishment of a special course for children of fourteen years of age. In this class, which is to be under the direction of a special teacher whose salary is paid by the Consumers' League, factory conditions are to be imitated as nearly as possible and articles of commercial value are to be produced for use in the schools. The school opens in the autumn. The teacher who is to have charge of the class has been spending the summer in acquiring some additional experience. She is a teacher of experience in general school work and is now to have charge of this special problem.

Such an experiment is of very general interest at this time when the question is being raised whether the "regular" school organization can manage vocational education. Let private agencies try supporting the school board in a straightforward experiment rather than bring chaos into our already complex school organization by starting experiments without the aid of trained teachers and administrators.

TOPICS DISCUSSED AT THE MEETING OF THE N.E.A.

The impression which is made on the public mind by a gathering of teachers is quite as important as the impression that is made upon the members of the association itself. The following editorial from the *Tribune* of Salt Lake City gives a summary of what might be called the academic side of the summer meeting of the National Education Association:

The papers read by the teachers were of a high order of merit, and they offered a wide variety of treatment. Some teachers seemed to favor the idea of making the schools more professional than they have been heretofore, allowing the teachers a greater control and independence of the local school boards. A good deal of criticism of boards of education was indulged in, and one would suppose from some of the sentiments expressed that the teachers had on the average a rather poor opinion of boards of education in general, especially when the teachers get away from home. Other speakers, on the contrary, favored not only a full participation of the boards of education in the school work, but of parents, and indeed of the whole community; it being urged that unless the whole public is favorably interested in the school work, that work is likely to languish and to suffer. We think there can be no question that the latter view is the better one to take. At the same time, wide discussion is desirable in all matters of public concern, and so it was good to see these wide variations of opinions frankly and freely expressed.

A decided tendency was noticeable in the addresses as delivered in favor of making the schools more practical, and getting away from the old idea that the grade and the high schools are chiefly serviceable in preparing students for colleges and universities. This is the old school ideal; but a very decided tendency was manifested to get away from it. The new tendency is to introduce new studies, especially to strengthen manual training and to introduce the study of agriculture in the grade schools. The idea appears to be to make each system of school work measurably complete in itself—in the grades, the high schools, the technical schools, the vocational schools; and the colleges and the universities for those who have the time to reach them. Undoubtedly, this reaching out toward the practical idea, to make the schools as immediately serviceable as they can reasonably be made in practical utility, is the direction which the school work is likely to take. There has been in the past too much time given to studies preparatory to advanced grades and theoretical instruction in the higher institutions of learning; the result being that the pupils so instructed were left high and dry between the two ideals. They have been getting too little of a practical nature, and too much of what they will never find use for. We have no doubt that the tendency of the school instruction must tend more and more to the practical and less and less to the theoretical and to preparation for professional life. Those who wish to educate their children thoroughly on the old basis, and have the time and the money to do

so to the utmost possible extent that the higher-education institutions can provide, will utilize the grade schools and the high schools as steps in the direction sought; but those children who have neither the taste nor the time to pursue finished courses of instruction to the ultimate limits will be given a better start in life from the practical schools as changed. They will be put in touch with their environment and instructed in those things which their daily life will touch; and this unquestionably will be a great improvement over the old methods.

INNOVATIONS IN HIGH SCHOOLS

The following items are selected from the news circulars of the Bureau of Education:

"For first-year pupils only" is the motto of the Parker High School at Dayton, Ohio. The object of this school is to carry boys and girls over the difficult "Freshman" period. Superintendent Painter has recently put into the hands of every eighth-grade pupil in Dayton a booklet describing the purpose and value of a high-school education with special reference to the advantages of the Parker First-Year High School.

A number of the leading business and professional men are giving talks to the high-school students at Shelbyville, Ind., on vocational topics, thereby giving the boys and girls the benefit of the experience of the men who are doing the work and solving the problems of that community.

The Board of Education of Bristol, Conn., has passed a rule permitting high-school pupils to substitute music, either instrumental, vocal, or theoretical, for a high-school study. In order to do this they must do a specified amount of work under a teacher approved by the board of education and reports must be made by the music teacher and the parents in regard to progress and practice. The superintendent reports good results from this plan.

CONSOLIDATION OF HIGHER EDUCATION IN MONTANA

Some months ago the *School Review* reported briefly the move which was being made in Montana in the direction of consolidating her institutions of higher education. The *Tribune*, of Great Falls, Mont., published on July 23 the following article, which sets forth the result of that movement:

According to the will of the legislature as expressed at the last session the institutions of higher learning were consolidated into one institution to be known as the University of Montana. The board of education was instructed to cut out all unnecessary duplications in the courses of studies at the institutions located at Missoula, Bozeman, Dillon, and Butte, and were authorized as a means to this end to appoint a chancellor of the unified university to supervise and regulate under their instructions the schools at the separate cities

which were to constitute departments of the consolidated University of Montana. This action of the legislature was taken after it had definitely turned down a bill which proposed to consolidate the various schools phyiscally as well as theoretically by abandoning the present separate locations of the schools and bringing them together in one city to be selected by a referendum vote of the people, every city in the state that desired the location to be given the privilege of submitting a bid for the location. The majority of the legislature felt that the effect of such a contest would be worse than the capital fight. They therefore substituted the present scheme of theoretical consolidation and the operation of the several schools at their present locations as departments of a consolidated university.

In carrying out this plan as ordered by the legislature the state board of education appointed a committee of experienced men to report on duplications that should be eliminated in the various schools. That committee has performed its task and its report has been adopted. It was not a pleasant task, because it was not possible to perform it without creating some dissatisfaction and disappointment in the schools where present courses were eliminated, and the students taking them obliged to go to another institution. Yet the committee performed its task with courage and fidelity, and perhaps it may truthfully be said that their decision involves the minimum of dissatisfaction. They followed the plan of dividing the courses given in the College of Agriculture and Mechanic Arts at Bozeman and the university at Missoula into two rough divisions, the fine arts and liberal arts going to Missoula and the mechanic arts and technical courses to Bozeman. Under this division the engineering course at Missoula was sent to Bozeman, and pharmacy and several other courses, including what they termed vocational English, which were taught at Bozeman, were sent to Missoula.

BOOK REVIEWS

Medieval Story and the Beginnings of the Social Ideals of English-speaking People. By WILLIAM WITHERLE LAWRENCE, PH.D. New York: Columbia University Press, 1911. Pp. xiv+236.

It is a pleasant task to read and appraise such a book as Professor Lawrence' *Medieval Story*. Professor Lawrence has undertaken to outline the history of the great mediaeval stories and to discover in them the beginnings of the social ideals of English-speaking people. One is glad to review the mediaeval stories, so familiar through reference and in modern versions, though often unknown at first hand, and even more glad to find in them the prototype of much that is splendid and hopeful in our modern state. Particularly will this volume appeal to the students of literature and history.

It is hardly conceivable that any teacher of English literature of whatever grade would consciously lack such acquaintance with our English stories of the Middle Ages and earlier periods as may be gained from these eight chapters. It is true, some of the stories, such as "Reynard the Fox" and the "Song of Roland" do not appear in any of our English readings in schools. But the Arthurian story, the story of the Holy Grail, the Robin Hood ballads, "Beowulf" not infrequently, the "Canterbury Tales" less infrequently do so appear. This book, the best brief book on this subject that I know, is needed by teachers of such readings.

It deals with the origin of these stories, outlines each story in fascinating summary, compares briefly the different versions, and indicates at every turn the social ideals to be found in each, not forgetting the modern or related forms of these stories, like Scott's ballads, Tennyson's "Idylls," Lowell's "Vision of Sir Launfal," Uncle Remus' Brer Rabbit stories, Kipling's "Just-So Stories," and "Jungle Books," Maeterlinck's "Blue Bird," and others. Here is the vigor of Beowulf ruling in "warlike and democratic, yet cultivated and highly-conventionalized society." Then we see the heroism of Roland, symbol of a "consecration to a higher ideal of church and state"; we see Arthur, "the champion of the forces of righteousness." We discover knightly and ascetic ideals in the Grail legend opposed to the cynicism and satire of "Reynard the Fox" and tempered by "the hatred of sham and oppression" shown by that hero of the common people, Robin Hood. And at last we view the recognition and acceptance of social consciousness in the "Canterbury Tales."

The author points out how "Beowulf" reveals the temper of the early Anglo-Saxon people, the Song of Roland marks the introduction of French ideals, the Arthurian legends and the legend of the Holy Grail embody the spirit of chivalry against which may be set the democratic protests of Reynard

the Fox and Robin Hood. The Canterbury Tales continue the expression of the democratic movement and mark the opening of the era of complex social struggle in which we find ourselves.

Altogether this is a highly satisfactory book. It is worthy of the Columbia University Press and of the author. A brief but excellent classified bibliography is appended to answer the question, sure to arise, "Where can I read some of these stories at first hand?" The matter of these chapters was delivered as eight lectures in Cooper Union, on the Hewitt Foundation, before an average audience. Only intelligent interest was assumed. As printed the lectures have been altered but little; they are for the general reader as much as for the student. They cannot fail to instruct and entertain. One might spend some words commending Professor Lawrence' compact style, which permits and merits no skipping and one must speak if only briefly of the frequent admirable references to modern stories and poems, and to modern social ideals. It is refreshing to find here Brer Rabbit and the "Jungle Books" and the "Blue Bird," and cowboy songs and mention of modern politics and modern cartoons all woven cleverly and helpfully into the fabric of these chapters.

SAMUEL FOSS HOLMES

WORCESTER ACADEMY
WORCESTER, MASS.

The Enjoyment of Poetry. By MAX EASTMAN. New York: Scribner, 1913.

There are many recent treatises on poetry, which would explain its essential nature to the student. But Mr. Max Eastman's *Enjoyment of Poetry* differs from the most of these in several points. They aim directly at increasing our knowledge about poetry, and only indirectly at increasing our enjoyment of it. Mr. Eastman's book makes directly and avowedly for our fuller appreciation of poetry, imparting by the way such understanding of its larger aspects and elements as this end demands.

Mr. Eastman's fundamental conception of his subject gives ground for further distinction. Poetry is too often, even in these days of genetic and functional psychology, analyzed rather as a finished product than as a living process. Mr. Eastman is concerned with the act of poetry, wherever it may be found, not only in print, but in common talk, even in slang. He examines this poetic process through the lenses of modern psychology, but these are so clear that the reader feels himself to be using his own unmediated vision. Instead of dealing with poetry, then, as an isolated phenomenon, limited to a few favored individuals, Mr. Eastman recognizes the poetic activity as an essential stage or element in our mental life. "Poetry but dwells upon and perfects that significant imagery which is the material instrument of all thinking." Though primitive folk and children instinctively use this natural instrument of all thinking, "Education soon robs them of this quaintness. They are taught that they must get understanding, they must not linger and behold."

Those who submit to this discipline become the practical people, who are chiefly occupied in attaining ends, while the poetic people are absorbed in receiving and realizing experiences. Or, to use Mr. Eastman's initial illustration, the poetic type of person is interested in crossing the river on a ferry-boat, the practical type is merely interested in getting across. The poetic process is essentially one of realizing the experience at hand, not merely adjusting oneself to it.

This is the primary thesis of Mr. Eastman's book, and we can therefore understand at once why "Of all things poetry is most unlike deadness," why it demands the mood of leisure, the capacity for "vigorous idleness," and the spirit which revolts against custom and routine. Because it demands leisure, poetry has in this age grown aristocratic and feminine, and must depend for its democratization upon "a drastic redistribution of the idle hours."

Reading this book should serve as a delightful means whereby the person who does not care for poetry might find out what it really is. One wishes that children in the schools could have poetry administered to them by teachers who had such a broad, vital, and fundamental notion of it as this. There would then be fewer "practical men" who have no part in our inheritance of English poetry, fewer college students who read it only under the compulsion of class requirement.

The chapter on "Poetry Itself," was made brief, Mr. Eastman explains, "because it contributes little to what is already contained in other books." But the reader who has followed with delight the unconventional and genuine thinking of the previous chapters is disappointed. Why not encounter at first hand these problems also? A more searching analysis of the so-called formal elements of poetry might, one feels, have yielded results altogether commensurate with those achieved in the handling of the larger aspects of the subject.

Mr. Eastman's delightful scorn of education in general and of the teaching of literature and of the ancient figures of speech in particular makes joyous reading, but leaves, at least in the academic mouth, a taste of unfairness, or perhaps rather a suggestion that the writer is not familiar with more recent developments in these fields.

Such minor criticisms, however, seem ungracious in the presence of this genuine contribution to a sound and large estimate of the great fact of poetry. Its easy discursive style, intershot with vivid images and singularly expressive phrases, should give its ideas wide currency and thus make possible for more of us the use of "the poetry of words . . . . as a means toward the poetry of life."

GERTRUDE BUCK

VASSAR COLLEGE

A Textbook in the History of Modern Elementary Education. By SAMUEL CHESTER PARKER. Boston: Ginn & Co., 1912. Pp. xxiv+505.

At the present time there is a general opinion among educators that the history of education must justify itself. A *Kulturgeschichte*, a diluted history

of philosophy, a series of biographical sketches, or an account of educational theories may be interesting and have its place in a liberal education, but it is no longer to be considered a history of education, and those interested in training teachers are beginning to insist that it has little value for their work. There is, accordingly, an evident demand for a textbook that will genuinely function, and, without formulating it in this way, Dean Parker has undertaken to furnish such a work. To accomplish this, his book seeks especially to emphasize (1) the developments of actual school practice, (2) English and American conditions, and (3) changes since the eighteenth century. In this he has admirably succeeded. The book steers clear of both the Scylla of unsupported generalizations and pseudophilosophic interpretations and of the Charybdis of dead-level detail that have destroyed many a fair historical craft. Where educational events or theories have had no appreciable effect upon the administration, content, or method of education, Mr. Parker does not give an account of them for the mere sake of exhausting the subject (and the reader), nor does he strive for an impossible condensed description. Instead, he frankly dismisses them from his discussion. Yet he seems to feel the need of perspective and attempts to give all procedure its appropriate setting in the social conditions and underlying theories of the time.

The main division of this history of elementary education is based upon the transfer of schools from ecclesiastical, which Mr. Parker describes as "religious," to civic and national, which he calls "secular," control. This terminology is likely to prove misleading, but the discrimination is essential and the method of approach indicates the universalizing and centralizing process that has fundamentally characterized the development of modern education. The description throughout is clear and interesting, but the author evidently has in the past given more study to Parts II and III and understands their field better than that included under Part I. Chaps. viii and ix are especially strong. Mr. Parker gives the impression of having lived with his *Emile*, and he seems to have a broader conception of the significance of Rousseau to the history of education than anyone who has yet written on the subject, without excepting Morley, Davidson, Monroe, or Boyd. He appreciates the importance of Pestalozzi's social reform, except that there is no mention of its relation to the education of defectives, and yet is not overcome with sentimentality concerning that great teacher's love for little children. The tracing back of standard American textbooks on geography, arithmetic, language, and elementary science to the objective methods of Pestalozzi, and the account of the formalized and degenerate object teaching that has exercised so baneful an influence upon school practice, constitute most profitable departures from the beaten path. In his treatment of Herbart and Froebel, the author reacts almost too strongly to the common overemphasis upon the metaphysics of these writers. In fact, Mr. Parker seems to be something of a *philosophobe*, if one may coin a word after the Worcester school. It is well to show that Herbart's tutorial experience furnished the basis for his pedagogy, and that his system of metaphysics was

an afterthought, but a brief description of his graphic psychology would at least have aided the student in understanding his educational theories, especially "apperception," "interest," and the "moral aim of education." Nor is it true that "according to his [Herbart's] metaphysics, the possibilities of education are unlimited," while "according to his pedagogy, the teacher must keep constantly in mind the limitations of education" (p. 381). The parenthetical phrase, "as generally interpreted," somewhat saves this statement, as both adherents and opponents of Herbart have been singularly blind to his appreciation of the innate and instinctive, but his interpreters have overlooked this feature in his psychology, as well as in his pedagogy, and it is as apparent in the one as in the other. Again, Mr. Parker is one of the few who have brought out the influence of Froebel upon educational practice in all stages of education today, and have not lost the clue of "motor expression" and "social participation," with their effect upon the development of "manual training," "busy work," etc., in the maze of idealism, romanticism, and *Naturphilosophie*. But is it fair to state that, although "Froebel probably derived his educational theories to a considerable extent from his fundamental philosophy, and they were consistent with it, since most students do not know or understand the theories or the history of modern philosophy, it is not worth while here to attempt to study Froebel's philosophy in order better to understand how he explained his educational belief"? This, however, is apparently to be understood somewhat in a Pickwickian sense, for Mr. Parker himself proceeds at once to give the gist of Froebel's philosophy (p. 433), to show its origin and significance (p. 435), and to discuss at some length the value of his mysticism and symbolism (pp. 439–41 and 458–60).

This reception at the back door of material rejected at the front, however, is only an exaggeration of Mr. Parker's characteristic method of presentation, which is psychological rather than logical. While he seems, in the case of Froebel, to have created the impression of an unsolvable mystery, and at other times his psychological treatment dislocates a subject, as in the history of special subjects in the curriculum, generally speaking, this method of procedure proves most natural and attractive. Mr. Parker has written his text upon the model of a well-conducted recitation, and fully justifies himself as a professor of educational method. The book is, however, occasionally marred by infelicities in style. For example, one might question the mixed construction in the second paragraph on page 222, and the repeated use of the first personal pronoun (pp. 362, 380, 409, 413, 424, etc.) in a narrative otherwise in the third person, although it is done, strangely enough, in the interest of scholastic modesty. A few slight inaccuracies also appear. If Mr. Parker followed present-day debates in ecclesiastical circles, he would not equate the English Church with the Episcopal (p. 228). It was Joseph Neef, not "Naef" (pp. 288, 297, 500), who taught at Burgdorf and became his master's disciple in America, although Elizabeth and Conrad Naef were among those associated with Pestalozzi. And while the book bears evidence of great care, there are

still some inadvertencies on the part of the author, or "improvements" introduced by the printer; such, for example, as: controled (p. 208), Quick, P. H., for "R. H." (p. 224), pole tax (p. 262), Strassberg (p. 313), National Teacher's Association (p. 332), Levy for "Levi" (p. 370), and the studies (for "study") of the historical subjects (p. 393).

The criticisms above may, however, seem pedantic and captious, in view of the real merit of the book. Mr. Parker's text is, in general, the type of "thing we long have sought, and mourned because we found it not." It will be of real service in training teachers, especially for elementary grades. The brief statement of the main points at the beginning of each chapter will greatly assist the student in his reading and will prove an excellent means of reviewing and making the connections between various parts of the book. The illustrations have been well chosen and will often heighten the reader's mental picture. The author has been fortunate in being able to draw upon the invaluable Plimpton collection and other sources for his visual material. From the *Tower of Knowledge* of Gregorius Reisch, which first appeared in 1504, to the most modern examples of constructive work in the Dewey experimental school, the illustrations are pertinent, clear, and attractive.

FRANK P. GRAVES

OHIO STATE UNIVERSITY

General Science. By BERTHA M. CLARK. New York: American Book Co., 1912. Pp. 352. Illustrated. Laboratory manual for the same. Pp. 96.

General Science, as the name would signify, is a book containing material from a number of sciences. The chief topics included are mechanics, heat, light, electricity, hygiene, applied chemistry, and physiography. As may be seen from this list, there is no attempt to include any botany or zoölogy as such, though yeasts and molds are dealt with in connection with hygiene and chemistry.

Since the author has dispensed with the traditional divisions of material it is interesting to note her standard of selection. In the preface we find a statement of this: "No claim is made to originality in subject-matter. The actual facts, theories, and principles used are such as have been presented in previous textbooks of science but the manner and sequence of presentation are new, and, so far as I know, untried elsewhere. These are such as in my experience have aroused the greatest interest and initiative, and such as have at the same time given the maximum benefit from the informational standpoint."

As usefulness and interest determine the subject-matter, so do interest and simplicity determine the method of presentation. The book is certainly interesting, and simple enough to be used by a seventh-grade pupil with appreciation. For an example of its style and method I quote the following discussion of the expansion of solids which follows a similar discussion on liquids: "Not only liquids are affected by heat and cold but solids also are subject to similar

changes. A metal ball which when cool will just slip through a metal ring will, when heated, be too large to slip through the ring." (Here a pictorial illustration is provided.) "Telegraph and telephone wires, which in winter are stretched taut from pole to pole, sag in hot weather and are much too long. In summer they are exposed to the fierce rays of the sun, become strongly heated, and expand sufficiently to sag. If the wires were stretched taut in summer there would not be sufficient leeway for the contraction, and in winter they would snap." Accompanying the text is a laboratory manual. This provides for simple exercises to illustrate the facts given in the text. Here also no difficulties are met with in the way of mathematical problems or complicated apparatus. Each experiment is to show clearly some simple principle learned in the text. For example, to accompany the above-mentioned study of the expansion of metals an exercise is given to the pupils. In brief it is this. A bar of iron is measured, heated a given number of degrees, and measured at the new temperature. From the data so obtained the expansion of one centimeter of iron when heated one degree is determined. "This is the coefficient of expansion of iron." The experiment is not so conducted as to provide any considerable degree of accuracy, but it will at least impress the fact that the iron did expand and, if properly conducted, should make the pupils keen in observing the means of adjustment to such action in bridges, rails, etc.

This book does not provide a course in science in the sense of affording a training in scientific thinking or developing a scientific attitude toward the phenomena studied. What it does accomplish is to give the child a great deal of information about the things with which he has most to do and to explain those phenomena which most concern him. It has the same relationship to physics, hygiene, and chemistry that nature-study has to botany and zoölogy. As a text to follow one in nature-study in the grades *General Science* would be excellent. Like the texts in Nature-Study it has been free to consider the interests of the pupil aside from any traditional course of study requirements or even of justification as a mental discipline.

At the time of the seventh and eighth grades most children, particularly boys, have a great interest in knowing how and why many things are done. It is the age of planning and making things, the age when a boy wants to do something practical. At this time the demand is great for popular science literature and for books such as *How to Make a Sail-Boat*. Since children will apply a large part of their interest in this way it seems as though this energy might be much better used if intelligently encouraged in school by such a text as *General Science*.

JOHN A. MONTGOMERY
UNIVERSITY OF CHICAGO

The Country School. By HOMER H. SEERLEY. New York: Scribner, 1913.

The main title of this book is not inclusive enough. The explanatory subtitle, "A Study of Its Foundations, Relations, Developments, Activities,

and Possibilities," conveys a more adequate idea of its scope. Though perhaps it offers nothing new on the work of actual teaching in the schoolroom, it organizes current knowledge on the subject into a workable body of information, intended specifically for the country teacher. The possibilities of the country school are dealt with at large. Fully developed it is to be a community center, reflecting every phase of community life. It is comparable to the city community center with a difference in activities demanded by country living. Though many activities are included which can be classified as neither urban nor rural, the lines are drawn sharply to exclude urban material, foreign to country living. This book is valuable to country livers in that it lays out a scheme of conscious development for them, based on past growth.

MABEL LODGE

IOWA STATE TEACHERS COLLEGE

Hygiene for the Worker. By WILLIAM H. TOLMAN and ADELAIDE WOOD GUTHRIE. Edited by C. WARD CRAMPTON. New York: American Book Co., 1912. Pp. vii+231. $0.50.

The growing tendency in recent years to make hygiene instruction popular and practical has been carried to the extreme limit in this volume.

"To equip the worker to care for himself under actual working conditions as they exist today and to add to his happiness and efficiency are the two purposes of the book." These purposes should be realized in a large measure if this little book falls in the hands of intelligent and ambitious boys and girls of fourteen to eighteen years of age.

There are nineteen chapters dealing with the main topics of personal hygiene and with subjects of particular interest to wage-earners such as: "Applying for a Position"; "Preparing for the Day's Work"; "Good Habits for the Worker"; "The Noon Hour"; "After Hours"; "Holidays and Outings"; "Choice of Occupation"; "Occupational Dangers"; "Fire"; "First Aid to the Injured"; and "What a Worker Has a Right to Expect."

The presentation is interesting and the information seems to be in general accurate, although some rather dogmatic statements are found, as on p. 20: "Tight, unventilated hats cause premature baldness in many men," and on p. 12: "A cold bath is far more beneficial than a warm one in the morning."

The book is illustrated with excellent drawings. "Emphasis is placed upon the constructive aspect of the illustration, and pictures of the distressing and disagreeable are not to be found."

GEORGE L. MEYLAN

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The Elements of English Versification. By JAMES WILSON BRIGHT and RAYMOND DURBIN MILLER. Boston and London: Ginn & Co., 1910. Pp. xii+166.

Designedly elementary, this textbook presents its material clearly, tersely, and thoroughly. It cannot escape the accusation of being rather dry, almost

flat; and in this respect it has been found less acceptable than Alden. On the other hand, it gains, by casting off the historic method, an immediacy of approach to the technique of a living art. Its chapters take up in succession verse units, the foot, the meter, the stanza, the poem of conventional form, with introduced chapters on scansion and the quality of sounds. Examples, though scanty, are uniformly provided, well chosen, and printed in readable type. The interested student will inevitably crave more; and for him it might have been well to add reference lists to other poems. The editors pronounce it difficult "to withhold comments on the aesthetic function of the forms and conventionalities of the art." Better had they not taken the pains! Brief notes, such as that the sonnet was originally and has been chiefly used for amatory verse, that blank verse is characteristic of most epic and dramatic poetry—with perhaps a mere note on the periods of their greatest influence and achievement—would have enriched the book at slight cost of space.

Positive faults of detail are few. In the index it should be stated whether the reference is to section or page. The reference to peonic verses from § 15*d* is incorrect, as is that in the index. Reference should be made from p. 31, l.1, to § 65 for stichic verses. The citation of many classical meters with no example from Campion seems incongruous. And Herrick's lines (p. 16) certainly lose their intended funereal effect if read as the editor suggests.

In Alden's book we have history; here we have technique. But should not a book on versification have the atmosphere, if it be not instinct with the spirit, of poetry?

PERCY W. LONG

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A Hundred Years of History, 1216–1327. By HILDA JOHNSTONE. London: Longmans, Green & Co., 1912. Pp. xv+292.

Miss Johnstone, lecturer in history at Manchester, England, has translated a number of extracts from the chroniclers, together with a few statutes taken from Stubbs, to illustrate English history from the accession of Henry III to the death of Edward II.

With the exception of the summons to the magnates of the realm and the Provisions of Oxford (from Stubbs) and the Peace of 1259 between Henry III and Louis IX (from Rymer's *Foedera*), all the extracts of the first 118 pages—about half the book—are from Matthew Paris, the chief of the great historical school of the Benedictine abbey of St. Albans.

When Matthew Paris' vivid and entrancing chronicle ceases, at the year 1259, Miss Johnstone depends on several sources for her extracts. The Barons' Wars and their effects on contemporaneous politics are told partly from the chronicle of Rishanger, the continuator of Matthew Paris, and a partisan of Simon de Montfort and the barons, partly from Thomas Wykes, chronicler of Osney near Oxford, and the sole supporter of the Crown among contemporaneous historians of the great struggle. This is the most illuminating

part of Miss Johnstone's compilation, because it gives a glimpse of the policy and principles of both the king's party and the confederated barons.

The very important years of Edward I's reign, from the accession down to the Scottish period (1272–91), are passed over with very scanty notice. They occupy only fifteen pages (150–64) out of nearly three hundred. It is difficult to see why the author, who has given us many pages of details of the French expeditions of Henry III, should have omitted almost the slightest reference to the enduring work of the first twenty years of the English Justinian.

For the close of Edward I's reign Miss Johnstone relies almost entirely on the chronicle of the Yorkshire annalist Walter of Hemingburgh and for Edward II's reign (which with disproportionate emphasis occupies the last third of the book, pp. 203–90) the authority is the anonymous *Vita Edwardi II*, with very few extracts from Geoffrey le Baker's eulogizing chronicle of Edward II, the Yorkshire *Gesta Edwardi*, and the *Annales Paulini*. It would have been interesting had the author drawn more largely on the last-named source, for the chronicler of St. Paul's was a Londoner and a layman. Few chronicles of the Middle Ages reflect the civic spirit and still fewer transcend the monastic point of view.

We are puzzled to know just what function Miss Johnstone's interesting collection of extracts could fulfil in the pedagogical scheme. As a "source-book" it could serve only for a class studying a most restricted portion of English history, and for the special student of the mid-Plantagenet period it could by no means replace the full text of Matthew Paris, Hemingburgh, on the statutes of the realm. The advanced student will not need this reprint of extracts from record and chronicle; and for the elementary student, the extracts, presented as they are without introduction or comment, and in such great abundance would, we fear, be somewhat confusing and bewildering.

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The Teaching of Mathematics in Secondary Schools. By Arthur Schultze. New York: Macmillan, 1912. Pp. xx+370. $1.25.

This book differs from the two well-known books on the teaching of mathematics—the one by Professor David Eugene Smith, the other by Professor J. W. A. Young—in that it covers a much more restricted field. The book is for the most part a publication of a series of lectures, delivered by the author at New York University, in which he aimed to give concrete discussions of problems which arise in actual teaching. Excepting the two introductory chapters, the author has largely avoided generalities and has confined himself to concrete illustrations of effective methods of attack of fundamental topics. Although the book contains much material that is obvious and commonplace to the experienced teacher, it will, nevertheless, prove valuable to him, because of the numerous exercises and many clear figures. There are 118 exercises and

51 figures in the chapter on equality of triangles (chap. viii) alone. The various topics are treated in sufficient detail to be of great assistance to the inexperienced teacher.

The author is a vigorous exponent of the disciplinary value of education. In the preface its purpose is stated as being "to make mathematics teaching more disciplinary and less informational." It is, therefore, more important for a student "to learn how to demonstrate, than to learn demonstrations." Throughout the book emphasis is placed upon the importance of training pupils how to attack a problem. Two chapters (chaps. xi and xv) are devoted entirely to the modes of attacking theorems and problems.

The first chapter is a general discussion of the causes and remedies of the present inefficiency of the teaching of mathematics. False aim on the part of the instructor, memoriter work on the part of the student, "star" students, and attaching great significance to spectacular results obtained by examinations for which deliberate preparation has been made, are the chief evils stated. The second chapter deals in detail with the aim and disciplinary value of mathematics. The remainder of the book deals with the following topics: various methods (chap. iii), definitions (chap. v), the first propositions in geometry (chap. vi), original exercises (chap. vii), miscellaneous topics of the first book of geometry (chap. x), proportion theorems (chap. xiv), impossible constructions (chap. xvi), remarks on solid geometry (chap. xvii), applied problems (chap. xviii), and the teaching of trigonometry (chap. xix). Topics or pure mathematics are treated under foundations of mathematics (chap. xiv), methods of attack (chap. xv), limits (chap. xiii), and the circle (chap. xii).

In the last chapter the following principles are stated regarding the teaching of trigonometry: (1) emphasize all parts applicable to practical problems or which lead indirectly to such applications; (2) reduce topics which require memorizing; (3) define functions as the quotients of the sides of the right triangle; (4) introduce general definitions and extended theory late in the course, after the student has applied the elementary theory to many practical problems. Most of the textbooks recently published bear out these principles which seems to indicate that teachers of trigonometry are accepting these principles as basic.

In the chapter on the curriculum of algebra, there is a brief discussion of combined mathematics. The author attempts to state both sides of the argument, but it is clear that he has little sympathy with complete correlation of algebra and geometry. It is to be noted that he gives but two reasons against the correlation movement: (1) that this is in an experimental stage, (2) that "there exist many high schools in which the first-year students are not capable of attacking geometry as successfully as algebra" because "algebra resembles arithmetic." In the light of European experience and the recent experience of a rapidly increasing number of high schools in the Middle West, the first argument needs no longer to be refuted. The condition given as the second reason would be extremely hard to prove. Progressive grade teachers

are everywhere insisting that they be permitted to teach the elementary theorems and applications of geometry because (1) it is natural, (2) their students have the ability, and (3) students are interested in this type of mathematics. This demand is sound in the light of modern pedagogy. The equations of generalized arithmetic are being emphasized. All this means correlated mathematics in the upper grades of the elementary school. Under this condition correlated mathematics follows in the first year of high school because it "resembles arithmetic" of the grades.

Thus there will be a natural and unbroken development from the time the student has mastered the fundamental number concepts in the lower elementary grades to the advanced university courses. The questions to be asked are: (1) Ought the condition which the author describes to exist? (2) If not, would not a proper correlation eliminate it?

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[1] *Abbreviations:*—Am. J. of Psychol., American Journal of Psychology; Am. Phys. Educa. R., American Physical Educational Review; Educa., Education; Educa. R., Educational Review; El. School T., Elementary School Teacher; Geographical T., Geographical Teacher; Harp. W., Harper's Weekly; J. of Educa. (Bost.), Journal of Education (Boston); J. of Educa. Psychol., Journal of Educational Psychology; J. of Home Econ., Journal of Home Economics; Lit. D., Literary Digest; Liv. Age, Living Age; Man. Train. M., Manual Training Magazine; Outl., Outlook; Pedagog. Sem., Pedagogical Seminary; Pop. Sci. Mo., Popular Science Monthly; Pri. Educa., Primary Education; Psychol. Clinic, Psychological Clinic; Relig. Educa., Religious Education; School R., School Review; School W., School World; Sci. Am., Scientific American; Teach. Coll. Rec., Teachers College Record; Tech. World M., Technical World Magazine; Voca. Educa., Vocational Education.

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